USERS GUIDE ICPC-2 PLUS

INSTRUCTIONS

This guide consists of six Sections outlining the advantages of coding and classifying your data, giving guidelines to the use of ICPC-2 PLUS and a number of Appendices which are updated with each release.

You may print parts of the guide, the whole document (≈ 77 pages) or use it as an "on line" version on your computer screen. **This is a demonstration document that has sections removed that are updated and sent to users.**

To navigate through the guide click the blue underlined text to jump to that Section or Appendix.

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Family Medicine Research Centre
University of Sydney
in co-operation with
World Organisation of Family Doctors
(WONCA)

ICPC-2 PLUS

Family Medicine
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The International Classification of Primary Care (ICPC-2)

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ICPC-2 PLUS

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OUTSIDE AUSTRALIA AND NEW ZEALAND: BY QUOTATION

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SECTION 1:

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WORKSHOP REPORT

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General Practice Medical Records:

Why code? Why classify?

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Recently the Information Management Steering Group (IMSG), [a RACGP-AMA-Commonwealth Government committee responsible for the planning of information management in general practice], held a Coding Workshop at which available coding systems and their application in general practice computerised medical records were reviewed. As there has been in the past some discussion as to the value of coding, the workshop participants agreed that a paper outlining the reasons for coding and classifying clinical data should be prepared and disseminated to all general practitioners.

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Over 95 million general practice service rebates are claimed through Medicare every year. These services are provided by over 20,000 medical practitioners including 16,000 recognised general practitioners. Eighty two percent of the population visit a general practitioner at least once a year and each patient visits a GP an average five times per year (data obtained for the General Practice Branch, Department of Human Services and Health). However the management of the information recorded in the course of these services is generally poor. As a result very little of this large data

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source provides information which is useful to general practitioners for comprehensive and continuing patient and community care.

Clinicians need reliable clinical data: to provide quality patient management; for patient audit; for quality assurance and for practice management. Group information for the practice or the community also aids the management of specific groups of patients. Further, data collected for the primary purpose of patient care have secondary benefits. When collected and aggregated it can be used for clinical, health services and health economics research.

The use of a computer system will improve the quality of patient medical records[2] as they will be always be legible and will usually have greater structure than paper based systems. However the collection of information alone is not sufficient to provide meaningful data. In order to make information useful to individual practitioners, the practice or to epidemiologists, it must be easily accessed.

Why code the data?

Having decided to introduce computerised medical records into your practice you will be faced with the question of whether or not to code the data. Without codes computers will allow you to access information stored in free text by use of word search mechanisms. These allow you to sort your patients into groups, such as "all patients who have the word hypertension in their record". However the margin for error is great for you must ask the computer to search for every term you may have used to describe this diagnosis. The search will miss words which you have misspelt; and you will miss abbreviations (now forgotten) which you entered in a hurry during a rushed surgery. For analysis across the practice you must also be aware of all terms which may have been used by your partner or locum.

A code is a shorthand for a concept. It accurately compresses the data for storage. In the computer records environment most agree that it is unsatisfactory to store information only in free text, if you wish to retrieve the data and collate it at a later date.

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At a workshop held by the RACGP during 1993 specific reasons for coding data in medical records were identified. They include: to provide an audit trail; practice audit; memory prompts; continuity of care; assisting other carers in the practice (eg: partners and locums); quality assurance; better record keeping; decision support and protocols; periodic and incidental health checks; checking for disease-medication interactions; dynamic structured patient records; cost savings.

The use of codes does not preclude the use of synonyms, acronyms and key words to describe a concept in a medical record but ensures that the concept represented by the code is uniform for all practitioners. This results in greater consistency of data input and reliability of reporting. Clarity of communication in a common language, whether between partners or between primary and secondary care providers will increase quality of care. Just as importantly it facilitates accurate and speedy data retrieval. If a code has been attached to the label at the time of the encounter, a single search for one code will provide a list of all patients with the disease of interest, no matter how you described it in the medical record.

In addition to aiding in the selection of records for groups of patients, coding aids the linkage of events over time within a patient record. Using a single code to represent the disease or problem, during a consultation you can ask the computer to show you all encounters for this patient at which code X was managed, and view them consecutively on the screen. This is far easier than searching through pages and pages of records, (whether on paper or computer) when trying to build a historical view of the progress of a disease or of its management.

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Coding may also have some disadvantages which include the impact it has on the style of practice of the doctor. It requires the practitioner to think more specifically about the term selected to describe a problem. Coding systems must therefore be sufficiently flexible to allow individual preferences in terminology whilst maintaining accurate interpretation by others. Like computerised records, the introduction of coding systems requires a new form of discipline and a new way of thinking about records by professionals.

Some people suggest that coding the problems and their management is an extra job for the clinician.[2] They inevitably describe the time consuming task of looking up a list, selecting the code and then entering it on the record manually. Think again. Things are fast changing. In most software systems available overseas, and in an increasing number in Australia the concept of "terming" has been introduced. Terming refers to the entry of a few key letters (eg: osteo), an acronym (OA) or a brief key term to access a list of terms which should include the one you are looking for. You select the **term** from the pick list by a single key stroke (ie terming). The selected label and its code are automatically entered and stored by the computer. In the future, as hand written recognition systems are refined and become less expensive, you will be able to use the same process with the tip of your pen.

Coding is regarded by some as only useful in the diagnostic area. However, increasingly coding systems will include codes for all sorts of information in your medical records including the details of the drugs you prescribe, therapeutic procedures, pathology results, family history, risk factors etc. This will allow you to undertake more complex record reviews. eg: to investigate the number of patients who are on risk levels of a selected medication for a selected disease; develop reliable recall systems for preventive or follow-up care; check that none of your patients on NSAIDs also suffer from asthma. It is hoped that codes which facilitate the use of warning systems for allergies, adverse effects, possible contraindications and drug interactions, will also soon be available. This cannot help but assist general practitioners in the provision of quality care.

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Classification

The next question is "**why classify**?"

A classification is merely a method of placing the codes in a sorted and meaningful manner. A good structure allows you to manage the data within the practice in terms of **groups** of codes rather than just a specific individual code.

We use structured coding systems in many areas of our lives. Using an example within a student registration system, a typical hierarchical system may be:

Student ID number is 9435267:

94. . . . = year of entry;
3. . . = faculty of science;
5. . = school of physics;
267 = student number.

With this structured coding system you can easily identify:

. the number of students who first enrolled in 1994 at the university; *(sort on 94 only)*

. the number who first enrolled in the faculty of science in 1994; *(943)*

. the number specifically studying physics in the faculty in 1994.*(9435)*

. the individual student

Applying the same thinking to general practice where D = digestive disease; D1 = digestive infection; D116 = specifically gastroenteritis, you can select records at all levels: all patients who have at least one digestive disease; all who have had a digestive infection; and all who have suffered specifically from gastroenteritis. If the codes are not structured in a hierarchical manner the search at the gastroenteritis level is easy but those above become increasingly difficult. Without a hierarchy a search for digestive problems would require you to list all the codes which you feel fall into that group. Without a code you would have to list and search for all the possible terms you may have used to describe a digestive problem of any type. Codes which are classified make any data retrieval easier.

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One classification system or many?

There are many levels at which data retrieved from medical records are useful:

- individual patient information in general practice
- . information about groups and families in a general practice
- . community or practice population information
- . regional health information (eg: Divisions)
- . state and national information
- . international comparisons

The level of specificity required by each of these participants in the health care system varies considerably. Ideally one universal coding system would meet the needs of all these competing interests, but this is not usually the case. For example a coding system which classifies diseases in terms of broad group headings only (eg: digestive; cardiovascular etc.), is of little use in the GP surgery when you wish to record, code and store minute details about the health event which has occurred to your patient. On the other hand, the fine detail of a patient record is of little use to a regional health planner who may wish to allocate resources on the basis of broad parameters such as a body system heading. The decision of **which coding system** must be determined by the level of detail required at the first entry point, in this case the patient medical record.

Where the chosen classification does not suit all needs, multiple systems can be utilised through a process of "mapping". This is the process of working out the relationship between individual codes in each of the systems. Usually the more detailed system is "mapped" to the less detailed. Thus a group of codes, or multiple individual codes from a variety of sections in one system may be placed together under one code in another. The majority of internationally recognised classifications are mapped to multiple other classifications. For example, the International Classification of Primary care (ICPC)[3] has a body system based structure and is ideal for population based general practice data analysis. The International Classification of Diseases[4] has a disease based structure, far more specific codes and is designed for hospital data systems. The latter is mapped

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to the former so that data collected in terms of ICD can be analysed in terms of ICPC. Another example is the Read Clinical codes which are mapped to both ICD-9 and to ICPC.

The mapping process is the responsibility of the classification designer and allows people using different classification systems, possibly at different levels of care, to transfer information in a common language. It is therefore to your advantage to select a coding system which is internationally recognised, mapped to other systems, and designed for use in general practice.

For meaningful data retrieval there is one more facet of computerised medical records which needs to be considered in parallel to the selection of a coding system or systems. The medical record must be structured in a manner which allows the computer to recognise the true meaning of the code or term. For example, the code for "Ca-breast" has a very different meaning in the family history section of the record to its meaning in the patient problem list. Any data retrieval requires consideration of the sector of the record in which the term or code is noted. The RACGP manual record system has three structural elements based on the work of Lawrence Weed[5] and both can be effectively applied to computerised systems. Firstly the problem orientation allows linkage of a problem over time and tracks changing problem definition. Secondly the SOAP structure of the data within the encounter - subjective data, objective data, assessment and plan- which assures differentiation between lable meanings. Thirdly, the patient summary which includes an up-to-date list of all important morbidity and its management.

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Summary

Classification systems are being increasingly adopted by general practitioners throughout the world, particularly in the fast growing number of practices utilising computerised medical records. The advantages of coding data at the point of entry have been outlined in this paper and general practitioners in Australia should consider these points when thinking of using computers, whether for full medical records, recall systems, direct printing of prescriptions or age-sex disease registers.

The implications for later meaningful data retrieval to assist practitioners in the provision of quality care for their patients are enormous.

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Which code? Which classification?

Helena Britt

In the past few years, there has been considerable discussion about whether or not coding data in computerised clinical systems is necessary or even desirable[1,2,3]. More recently, in parallel with wider adoption of computerised clinical systems in primary care such discussion has subsided, suggesting a broader acceptance of the need to code and classify. However, as it appears that the Commonwealth Government is unlikely to make a directive decision about a set of "preferred classifications" for primary care in the foreseeable future, it is probably time to review the advantages and disadvantages of those that are available. While this paper concentrates on morbidity classifications we should not lose sight of the need to code other fields in the patient's record.

In the recently completed NSW data modeling exercise for Community Health, over 400 data items which could be classified were identified. These included some fields that clinicians automatically "classify". For example:

- the type of consultation - in general practice this is classified with the Commonwealth Medical Benefits Schedule (CMBS);
- patient characteristics such as age and sex are automatically classified (through habit)

Many other patient characteristics such as country of birth, language spoken at home etc. can be classified according to standardised systems provided by the Australian Bureau of Statistics (ABS).

However, the area presenting the greatest classification problems to primary care providers is clinical information. Thinking in terms of the SOAP structure recommended by the RACGP, we have a wide range of information which ideally would be classified according to accepted national and international standards:

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S = Subjective

- Patient reasons for encounter (the patient expressed reasons for attending on that occasion). These may be in terms of the need for a service (*check up, referral, etc.*), symptoms (*headache*), or a diagnostic label (*about my diabetes*).
- presenting symptoms (information collected by the GP in the diagnostic process)

O = Objective findings

A = Assessment (problem label or diagnosis)

P = Plan (including prescribing, therapies and other treatments).

While all of these fields should be able to be coded and classified, the majority of recent interest has centred on the classification of the patient reasons for encounter, the presenting systems, and the problem labels or diagnoses.

When coding, one should always keep in mind the purpose. Coding should be used to facilitate logical and meaningful data retrieval, to find groups of patients for practice audit, follow up and recall systems, or to gain a view of your practice population and its morbidity. The classification you choose should therefore have sufficient specificity to allow you to select and save the term you want but not be so specific that it cannot be used with consistency and reliability.

THE INTERNATIONAL CLASSIFICATION OF DISEASES is the oldest and most widely recognised diagnostic classification available[4]**.** The 9th edition is used widely in the Australian hospital system (ICD 9 CM(A)), where trained coders receive paper records from clinicians and secondarily classify the diagnostic data. Another revision (ICD-10)[5] is to be released in early 1998 after adaptation for Australia.

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ICD began its development in the late 19th century as an international list of causes of death. It therefore has an emphasis on disease in terms of its aetiology, pathology and morphology. In primary care many of the problems presented and managed remain ill-defined at the end of the consultation and it is difficult to classify them in such a disease oriented system. In a comparative study of classification systems it was estimated that almost half the problems dealt with in primary care could be not classified with ICD[6]. In the late 1980's when New Zealand family practitioners were told to code using ICD 9, they simply stopped coding because it was far too difficult. All looked forward to the new version (ICD 10) which was said to overcome this problem. Alas, the experts agree it fails to do so.

Advantages:

ICD is an international classification widely used in tertiary institutions in Australia and elsewhere.

Disadvantages:

- The rubric (i.e. the ICD description of the medical concept) is often a false terminology with little relationship to the natural language of clinicians, having been designed for secondary, rather than clinician coding.
- ICD is a static classification. It is only revised every 10-15 years so it does not keep up to date with changing medical terminology and the discovery of new diseases.
- It lacks sufficient rubrics for the many ill-defined conditions managed in primary care

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THE READ CLINICAL CODES:

The Read codes have been described in more detail elsewhere[7] but in summary: they are a comprehensive nomenclature of medical terms derived from international classifications such as ICD 9[4] and OPCS 4 (a classification of surgical operations and procedures, similar to our CMBS).[8] The version presently used in the UK (READ 5 byte set) includes over 100,000 preferred terms and 150,000 synonyms. The original developer, a GP named James Read, started with a list of terms he used in his practice and asked GPs to try and use it. As they requested the addition of other specific terms they were added to RCC. It is regularly updated each three months in response to GP needs.

Read codes suffer from confusing version terminology. A brief history is tabulated below.

Year	Name	No of Codes	Description
1982		25	brief problem list
1985	4 byte	40,000	GP record summary
1988	5 byte	90,000	Hospital record summary
1994	Version 3	110,000	Full medical record
1995	Version 3	150,000	Full health record

The 5 byte set had two versions of data file structure, version 1 and 2. Read Version 3 represents a term set, code set and file structure. Future versions will be labelled by date.)

Advantages: (Read 5 byte set)

- It was designed in general practice, and therefore includes terms used by GPs.
- It was the first system designed for computers rather than for paper based secondary coding;
- It is a hierarchical system with five levels, each level being more specific.
- Its quarterly updates make it dynamic rather than static

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Disadvantages:

- The five level structure means you can go down one path looking for the term you want and not realise there is a more appropriate term somewhere else in the hierarchy. This can lead to poor inter-practitioner reliability in the coding of the same medical concept.
- It is sometimes far too specific: For example:- you can code “hit simultaneously by two trains moving in opposite directions”.
- There is therefore a high signal to noise ratio which often makes it difficult to locate the term you want.
- In other areas it lacks sufficient specificity for clinical purposes (particularly in the psychological and social areas).
- Analysing data using Read can also be difficult because of its size and its ICD structure.

From a practical viewpoint there are other things about Read that Australian primary care providers should consider. The Aus Read Trial[9] demonstrated that:-

- many of the Read “preferred terms” are not suitable in the Australian environment — the synonymous terms are more appropriate
- the hierarchy is not always suitable (e.g.: asthma is classified as a specific type of COAD).
- many of the key words, (i.e. words that the GP enters in order to find the term they want), need to be Australianised

Since the trial the Australian Government has not bought a National license for the codes so they will remain fully controlled from the UK. Individuals who wish to buy a license for Read Clinical Codes can do so by contacting the distributors direct. There will be no Australian back-up nor production of an Australian version unless Australia negotiates a licence.. Those considering buying New Zealand medical record software which uses Read should be aware of this.

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Read Version 3 is even larger than its predecessor. It has been broadened to cover terms used in the entire health record. It includes many specialty codes which have been added after a $40 million project in which 40 professional colleges designed a term set for its specialty. It has 250,000 terms organised in a hierarchical structure one could describe as a "tree". Classifications can be “laid over” the top of the terms, so you can analyse data almost any way you wish. However it is not yet in widespread practical use. Software systems using Read 3 are still under development. Some feel that general practice terms have been somewhat lost in the mire.

THE INTERNATIONAL CLASSIFICATION OF PRIMARY CARE (ICPC)

In the 50’s and 60’s a number of countries (including Canada and the UK) attempted to develop new classifications specifically for primary care. In the early seventies, the newly formed Classification Committee of the World Organisation of Family Doctors (WONCA) decided it was time to develop a new international classification for primary care. This resulted in the International Classification of Health Problems in Primary Care (ICHPPC), the second version having the added advantage of inclusion and exclusion criteria[10]. However, it still lacked sufficient codes for ill-defined conditions and patient expressed reasons for encounter largely because it retained the ICD structure which confined its flexibility.

In 1978 WHO set up a working party to develop a classification system for patient reasons for encounter. Most of its members were also members of WONCA. This work resulted in the International Classification of Primary Care (ICPC)[11] which incorporated codes for patient reasons for encounter, symptoms and ill-defined conditions, with the addition of the morbidity codes from ICHPPC2 (Defined).[10]

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The structure of ICPC differs from that of ICD and Read. It has a biaxial structure with 17 chapters on one axis , mainly based on body systems with an additional chapter for broad, ill defined conditions (e.g.: feeling tired; general ill feeling etc.), another for psychological problems and one for social problems. On the other axis are 7 components. Component 1 covers symptoms and complaints. Component 7 covers diagnosis/disease and components 2-6 are process codes (e.g. check, immunisation, test results) which apply equally in all chapters. It was designed for paper based data collection with the primary care provider selecting the code at the time of the encounter.

Advantages:

- Its structure follows the natural process of primary care and facilitates access to meaningful morbidity groups (e.g.: all cardiovascular disease, all respiratory symptoms; all skin infections; all injuries; all preventive care; all immunisations).
- It is small enough to handle, having only 1300 rubrics

Disadvantages

- Because it was designed as an epidemiological tool, it only includes a specific rubric for the most common problems managed in general practice. The less common problems are placed into “rag-bag” codes such as ‘other diseases of the respiratory system’ or “other digestive symptom”.
- The published version of ICPC (now out of print) has a poor index. Therefore, when a practitioner cannot find the term in the index s/he has to make a decision about where it should best be classified. This leads to a lack of coding reliability which has repercussions when you later wish to later compare data from multiple sources.
- For computerised clinical systems the disk copy of the book lacks sufficient specificity for medical records or even for disease registers and recall systems. A prime example is: all types of diabetes are grouped in one rubric (diabetes) - yet for quality care, for legal reasons and for sheer convenience you need to have recorded IDDM or NIDDM in the patient’s record, not just diabetes. Another example is the combination of HIV+ and AIDS together in one code.
- Like ICD, it is a static system which is only reviewed each decade.

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ICPC PLUS:

Recognising the advantages of ICPC as an analytical tool and its disadvantages in terms of its lack of specificity for clinical systems the Family Medicine Research Unit, University of Sydney developed an extended version of the ICPC. The extension was based on data recorded by GPs about more than 800,000 GP-patient encounters, collected during the Australian Morbidity and Treatment Survey (AMTS)[12], the Country-Metropolitan Comparison Study[13] and a popular quality assurance option the Morbidity and Therapeutic index. All the terms recorded by GPs to describe patient reasons for encounter and the problems managed were classified according to the ICPC. However, each term was given its own extension code. As with Read Clinical Codes, multiple key words were attached to each term to facilitate easy access to terms. On entry of a key word (e.g. OA) a pick list is offered to the user who highlights the term required and "clicks" or hits "return" to select it. This is called "terming" rather than "coding". The clinician should hardly be aware that a "code" is attached - that is the computer's job. Used in suitable computerised clinical system ICPC PLUS allows the clinician to save the term as selected - it does not replace that term with a "higher" description of the concept. Like Read, ICPC PLUS is updated quarterly with additions made in response to users' requests.

USAGE OF THESE CLASSIFICATIONS:

ICD9 CM (A) is being used throughout the hospital system in Australia and many other countries. Some primary care software relies on selected sub-groups of its available codes. It is available through the National Coding Centre.

Read Clinical Codes are being used throughout general practice in the UK and are being trialed in New Zealand in both primary and secondary care. About 15 practices in Australia use them, most having adopted them as part of the Demonstration Practice Trials, funded by the Commonwealth Department of Human Services and Health. However, since the trials are finished these practices will now require a license for Read which can be obtained from their UK distributor, Computer Aided Medical Services.

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ICPC: is being used by between 20 and 40 practices in Australia, usually having been provided with a disk copy of the codes only . Without the book which described the philosophy of ICPC the users may have difficulties when needing to choose a code for an unlisted concept. Throughout Scandinavia and in parts of North America ICPC is being used in combination with ICD 10. While ICPC is not available in book form at present , a disk copy of the book can be obtained from the Family Medicine Research Unit, University of Sydney. The revised version, ICPC 2, will be published in 1997 through Oxford University Press.

ICPC PLUS: is being used by 45 general practices in Australia and one in Fiji; the Department of Veterans' Affairs for the Health Care Plans; and the national hypertension study (ANBP2). A feasibility study of its application in Community Health Centres is under way, funded by a consortium of NSW, SA, ACT and QLD State Health Departments. It is being considered by the RFDS, Aboriginal Health, Northern Territory and Victorian Community Health. Under Federal Government funding it is presently being mapped to ICD 9 CM(A), so that data from different sources can be compared. ICPC PLUS is distributed by the Family Medicine Research Unit.

OTHER SYSTEMS

There are some other coding systems which should be mentioned for completeness:

SNOMED is an internationally designed classification with its origins in pathology. It works on a combination of pathophysiology, histopathology and anatomical site. It is a constructionist model which allows the development of highly specific codes which may be extremely useful in pathology. The level of specificity it allows goes far beyond the interests of primary care. Further, the system allows you to "build" nonsensical constructs such as "broken heart", "fractured eye". Its structure may be suitable to the reductionist theory of specialist practice but is the very antithesis of holistic care. Further, while SNOMED has enthusiastic supporters throughout the world, it is not widely used in general practice .

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UMLS (Universal Medical Language System) is strictly speaking a database access system, not a classification. The database includes both medical and scientific terms. It originated with the keywords from Medline and recently the terms used in many classification systems have been added. It is a search engine which was designed to contain sufficient terms (including words such as “aluminium”) to allow access to information from multiple sources using different medical terminology. It is, however, being used experimentally in several hospitals in the United States for the coding of medical problems.

In addition to these international systems, there are a multitude of Australian home-grown coding systems which do not have an international basis. The most well known of these is **Docle** which is based on the Linnean model, invented some 200 years ago for the classification of species. Unlike other systems it does not utilise numeric codes. It was described at a recent conference[14] as made up of two core concepts: " The first core concept of Docle is an algorithm that converts a piece of real world medical vernacular into a standard abbreviation. For example 'diabetes mellitus' is repackaged by the Docle algorithm as 'diabetesMellitus' before it maps to the Docle word 'diabm'. The second core concept is that of operators. Docle words can be combined together to form any number of complicated expressions by combining Docle terms with operators. For example a fracture of the radius can be expressed as 'frac.radi' - the dot operator translates to 'located at'." Docle is being used by one Australian GP software vendor.

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CONCLUSION

When selecting a coding system you need to consider the issues raised above. All classifications have some disadvantages but the most important issues are:

- breadth of coverage of primary care
- ease of access to the required term
- national and international acceptance and comparability
- ease of "sorting" the information for analysis and identification of patient groups.

Note that the classification you choose should be "mapped" (with authorisation) to ICD-9 CM(A) and later to ICD 10 if transfer of information across the health care system is ever to come to pass.

The computerisation of primary care is at the beginning of an exponential curve. Any acceptable classification system will cost you money. Think before you buy.

About the Author

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SECTION 2:

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INTERNATIONAL CLASSIFICATION FOR PRIMARY CARE

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Introduction

The International Classication of Disease (ICD) is the most widely recognised classification of diseases. The advent of yet another revision, the tenth (ICD-10)[1] in 1992 can cause confusion for those familiar with the currently used ICD-9[2]. This may be even worse for primary health care physicians who may also need to use other classifications such as the International Classification of Health Problems in Primary Care (ICHPPC)[3] or the International Classification of Primary Care (ICPC)[4]/(ICPC-2)[5]. The difficulties might be lessened by an account of their historical development, role, relationships, and relative merits.

Classification, nomenclature and thesaurus

Firstly however, it is important to appreciate what a classification is, and how it differs from a nomenclature or coding system. A medical ***nomenclature*** is a list or catalogue of approved terms for describing and recording clinical and pathological observations. It should be extensive so that any morbid condition that can be separately described has a specific designation. ***Classification*** is a method of generalisation to obtain data about groups of cases rather than individual occurrences. The categories should be chosen so that they will facilitate the statistical study of disease phenomena, grouping like with like. A specific disease entity should have a separate title in the classification only when its separation is warranted because of the frequency of its occurrence, or its importance as a morbid condition. Many titles in the classification will refer to groups of separate but related morbid conditions.

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It is the grouping of ***like with like*** which is the essential feature of a classification. If this is done in a hierarchical way, with varying levels of specificity (eg. diseases of the respiratory tract, diseases of the lung, pneumonia, lobar pneumonia) continuing into great detail, then a comprehensive classification such as ICD can be used in its most detailed form as a nomenclature. However an alphabetical list of conditions in a nomenclature cannot act as a classification.

Labelling aspects of general/family practice, such as reasons for encounter and health problems, requires that the available labels reflect the characteristics of the domain: general practice/family medicine. Labels should be derived from a nomenclature or thesaurus. A nomenclature contains all the terms and professional jargon of medicine, and a ***thesaurus*** is a storehouse of terms like an encyclopedia or computer tape with a large index and synonyms[6].

Classification systems provide a structure to order named objects in classes according to established criteria. They do not necessarily contain all terms, and difficulties arise when they are used as a nomenclature and terms are not found within them. Often many terms are included within one rubric, so that the use of coding based on a classification does not provide adequate specificity[6].

ICPC is a classification which reflects the characteristic distribution and content of aspects of primary care. It is not a nomenclature. The richness of medicine at the level of the individual patient needs a nomenclature and thesaurus much more extensive than ICPC, particularly for recording the specific detail required in an individual patient record. The use of ICPC together with ICD-10 and other classification systems, such as the Anatomical-Therapeutic-Chemical classification of medications (ATC), can provide the basis of an adequate nomenclature and thesaurus, but if full coding is required these must be supplemented by even more specific coding systems. However unless such coding systems are based upon a suitable classification, such as ICPC is for general/family practice, it is not possible to extract coherent data about populations rather than just individuals[6].

For clinical and medical record purposes a comprehensive nomenclature is needed, since the greatest possible level of specificity is required (eg. lobar pneumonia not just pneumonia or lung disease) without grouping even rare conditions together. However for statistical purposes this leads to so many categories that the data are unmanageable. Grouping of similar rare or less important conditions is essential.

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Historical background of Classification

The statistical study of disease began with work on the London Bills of Mortality in the seventeenth century[2]. In the eighteenth and the early nineteenth century there was much interest in the relative incidence of diseases and especially in the change in incidence caused by the disappearance of plague and the control of smallpox. Information, however, was based for the most part on mortality. Scanty references to morbidity were derived from general impressions only.

In the early part of the twentieth century James McKenzie appreciated the importance of morbidity data in his work at St Andrews and in the 1930's William Pickles reported important epidemiological investigations in country practice with information based on recording of morbidity. Since then there has been increasing recognition of the importance of morbidity studies, particularly from general practice, to describe and detect changes in the community's health status, and to predict health trends that may affect the need for medical services. Morbidity data are necessary for the study of causation of disease and factors influencing the incidence and natural history of disease, and in the evaluation of the effect of preventive procedures and medical care on the prevalence and severity of disease and the disability resulting from disease.

The International Classification of Diseases began its career in 1893 as an international list of causes of death. Listing for both mortality and morbidity purposes, and change of name, did not occur until the sixth revision in 1948. The emphasis has therefore been on diseases in terms of their aetiology, pathology and morphology.

Historical Background of ICPC

In primary care many of the conditions treated are vague and ill-defined and they can be classed only under broad general headings. In 1963 the Royal College of General Practitioners estimated that only fifty-five per cent of diseases in general practice could be diagnosed accurately in terms of aetiology, pathology and morphology. Others can only be diagnosed in terms of symptoms or complaints, and some consultations such as those for immunisation or medical examination do not relate to an underlying condition.

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Until the mid 1970's most morbidity data collected in primary care research was classified using the International Classification of Diseases (ICD)[7,8].This had the important advantage of international recognition, aiding comparability of data from different countries. However there was the disadvantage that the many symptoms and non-disease conditions that present in primary care were difficult to code with this classification, originally designed for application to mortality statistics and with a disease-based structure.

The Classification Committee of the World Organisation of National Colleges, Academies and Academic Associations of General Practitioners/Family Doctors (WONCA) first met in 1972 in Melbourne at the time of the inauguration of WONCA. Many of its members had already been corresponding for some years about morbidity classifications for general practice. The Committee agreed that it was time to design a classification specifically for primary care.

Recognising the problems of the ICD, and the need for an internationally recognised classification for general practice, the WONCA Classification Committee designed the International Classification of Health Problems in Primary Care (ICHPPC), first published in 1975[9] , with a second edition in 1979[10] related to the 9th revision of ICD. Although this provided a section for the classification of some undiagnosed symptoms, it was still based on the ICD structure and was still inadequate. A third edition (ICHPPC-2-Defined) in 1983 had added to it criteria for the use of most of the rubrics[11] greatly adding to the reliability with which it could be used, but not overcoming its deficiencies for primary care. A new classification was needed for both the patient's reason for encounter and the provider's record of the patients problems.

At the 1978 World Health Organisation (WHO) Conference on Primary Health Care in Alma Ata[12], adequate primary health care was recognised as the key to the goal of "health for all by the year 2000". Subsequently both WHO and WONCA recognised that the building of appropriate primary care systems to allow the assessment and implementation of health care priorities was only possible if the right information was available to health care planners. This led to the development of new classification systems.

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Later in 1978 WHO appointed what became the WHO Working Party for Development of an International Classification of Reasons for Encounter in Primary Care[13]. This group, a majority of whose members were also members of the WONCA Classification Committee, developed a Reason for Encounter Classification (RFEC) [13,14,15] which later became ICPC.

Reasons for Encounter

Reasons for encounter (RFEs) are the agreed statement of the reason(s) why a patient enters the health care system, representing the demand for care by that person. They may be symptoms or complaints (headache or fear of cancer), known diseases (flu or diabetes), requests for preventive or diagnostic services (a blood pressure check or an ECG), a request for treatment (repeat prescription), to get test results, or administrative (a medical certificate). These reasons are usually related to one or more underlying problems which the doctor formulates at the end of the encounter as the conditions that have been treated, which may or may not be the same as the reason for the encounter.

Disease classifications are designed to allow the health care providers' interpretation of a patient's health care problem to be coded in the form of an illness, disease, or injury. In contrast, a Reason for Encounter classification focuses on data elements from the patient's perspective[13,16,17]. In this respect, it is patient-oriented rather than disease- or provider -oriented. The reason for encounter, or demand for care, given by the patient has to be clarified by the physician or other health worker before there is an attempt to interpret and assess the patient's health problem in terms of a diagnosis, or to make any decision about the process of management and care.

The working group developing the RFE classification tested its several versions in field trials. The first field trial to test the completeness and reliability of the RFEC was a pilot study carried out in the Netherlands in 1980[14]. The results obtained from this pilot study prompted further feasibility testing in 1983. This was carried out in nine countries, namely, Australia, Brazil, Barbados, Hungary, Malaysia, The Netherlands, Norway, the Phillipines and the United States[15,18,19]. The entire classification was translated from English into several languages, including French, Hungarian, Norwegian, Portuguese and Russian. The analysis of more than 90,000 reasons for encounter recorded during over 75,000 individual encounters and the collective experience of the participants resulted in the development of a more comprehensive classification [15,18,19].

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In the course of this feasibility testing it was noted that the RFEC could easily be used to classify simultaneously the reasons for encounter and two other elements of problem-oriented care, namely the process of care and the health problems diagnosed. Thus this conceptual framework allowed the evolution of the Reason for Encounter Classification into the International Classification of Primary Care (ICPC).

Problems in relation to the concurrent development of ICD-10 prevented WHO from publishing the RFEC. However WONCA was able to develop ICPC from it and publish the first edition in 1987. While ICPC-1 was much more appropriate for primary care than previous classifications based on the ICD framework, it did not include inclusion criteria for the rubrics, or any cross referencing. It was thus in this respect less useful than the previous publication, ICHPPC-2-defined, though it referred to it as a source of inclusion criteria which could e used.

In 1985 a project began in a number of European countries to use the new classification system to produce morbidity data from general practice for national health information systems. This involved translations of the classification and comparative studies across countries. The results were published in 1993 in a book including an update of ICPC[20].

In 1980 WONCA became a Non-Government Organisation (NGO) in official relations with WHO, and joint work together since has led to a better understanding of the requirements of primary care for its own information systems and classifications within an overall framework encompassing all health services.

The International Classification of Primary Care (ICPC)

The International Classification of Primary Care (ICPC*)[21] broke new ground in the world of classification when it was published in 1987 by WONCA, the World Organisation of National Colleges, Academies, and Academic Associations of General Practitioners/Family Physicians, now known more briefly as the World Organisation of Family Doctors. For the first time health care providers could classify, using a single classification, three important elements of the health care encounter; reasons for encounter (RFE), diagnoses or problems, and process of care. Linkage of elements permits categorisation from the beginning of the encounter with RFE to its conclusion.

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The new classification departed from the traditional International Classification of Disease (ICD) chapter format where the axes of its several chapters vary, from body systems *(Chapters III, IV, V, VI, VII, VIII, IX, X, XI, XIII and XIV) to *aetiology (Chapters I,II,XVII,XIX,XX) and to others (Chapters *XV,XVI,XVIII,XXI). This mixture of axes creates confusion, since diagnostic entities can with equal logic be classified in more than one chapter, for example influenza in either the infections chapter or the respiratory chapter, or both. Instead of conforming to this format, the ICPC ***chapters*** are all based on body systems, following the principle that localization has precedence over aetiology . The ***components*** that are part of each chapter permit considerable specificity for all three elements of the encounter, yet their symmetrical structure and frequently uniform numbering across all chapters facilitate usage even in manual recording systems. The rational and comprehensive structure of ICPC is a compelling reason to consider the classification a model for future international classifications.

Since publication ICPC has gradually received increasing world recognition as an appropriate classification for general/family practice and primary care, and has been used extensively in some parts of the world, notably in Europe [20] and Australia [22].

* ICPC was first published in 198720. This is now referred to as ICPC-1. In 1993 it was included in a publication about its use in Europe19. This is referred to as ICPC-E. This 1998 publication is referred to as ICPC-2. ICPC is used when referring to the generic classification.

Classifications for primary care

Classifications for primary care have a number of requirements which differ from those of other branches of medicine because of the different spectrum of conditions seen and the different diagnostic and management processes involved.

The classification must cover the full spectrum of conditions treated, including undifferentiated complaints and symptoms, health promotion and prevention, as well as a full range of specified diseases. Abdominal pain should be reportable as "abdominal pain" and not, for example, as "?appendicitis" simply because there is nowhere else to include it.

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Conditions must be able to be determined on clinical grounds, without requiring distinctions to be made by inappropriate sophisticated investigations, or, even worse, by requiring knowledge of the underlying pathogy.

The classification should be logical and based on recognised criteria such as body systems, so that every condition has only one logical place. This is not the case with ICD, where the main groupings (chapters) include body systems, aetiology and patient age, with the result that influenza could as logically be in the infection chapter as in the respiratory chapter, and all perinatal conditions in any body system are grouped in one chapter.

The classification should be hierarchical, allowing entry of data at a specific level when indicated (eg. adeno-carcinoma of the colon) or at a much less specific level (bowel cancer) when either the clinical condition is not yet clear or the purpose of the data recording does not require detail. The more specificity required, the less reliable is the data.

Finally the classification should have clear outlines and rules, so that users appreciate how conditions are related within it. This means that the basic structure should not be too extensive, and the classification not too large.

No one classification meets all these requirements. Even if one did, it would not necessarily be ideal for all purposes. It is however important in the interests of comparability of data, particularly but not only on an international basis, to use classifications which have a defined relationship to others, especially to the most used, ICD. The narrow pathological basis of ICD has been considerably widened in the 9th and 10th revisions, the latter now including in its title "diseases and related health problems". However it is far from easy to use for primary care purposes, and the classifications specially developed for that purpose are to be preferred.

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SECTION 3:

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THE INTERNATIONAL CLASSIFICATION OF PRIMARY CARE –STRUCTURE AND DERIVATIVES

This section has largely been drawn from:

Lamberts H, Wood M. (eds). ICPC International Classification of Primary Care. Oxford. Oxford University Press 1987.[1]

Though ICPC was primarily designed for the classification of patient reasons for encounter (RFEs)* by the primary care provider at the time of the consultation, it can also be applied to the provider's assessment of the problem (diagnoses) and to the diagnostic and therapeutic interventions utilised at the encounter.

* *Patient reasons for encounter (RFEs) are very different from the diagnoses or problems managed. For an adequate description of the content of general practice, the whole process of care needs to be considered, including the reasons patients seek care. While the concept of recording patients' reasons for attendance is relatively new in Australia, in many countries increased interest in the patient-centred approach to medical care has led GPs to record the patients RFE in their medical records as a matter of course. In Australian general practice it is more likely that the GP will record presenting symptoms, which may represent only part of the patient's RFE. ICPC is ideal for recording both RFEs and presenting symptoms, and it is up to the individual general practitioner to decide whether either or both of these elements are to be coded.*

SOAP

Therefore three of the four parts of a patient's problem-oriented clinical record, which reflect the essential elements of each patient/provider encounter, can be coded using the ICPC.

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S = Subjective:the patient's reason for encounter (or presenting symptoms)

O = Objective:this element *cannot* be classified using ICPC

A = Assessment:the provider's interpretation of the problem in the form of a diagnosis or problem label

P = Plan:the process of care intervention undertaken by the provider

ICPC STRUCTURE

It has a biaxial structure with 17 **chapters** on one axis and seven **components** on the other.

Chapters are based on body systems with an additional chapter for psychological problems and one for social problems. Each chapter is identified by a single alpha code which is the first character of all rubrics belonging in the chapter (Figure 3.1)

Each chapter is divided into seven **components**, identified by a range of two digit numeric codes which are not always uniform across chapters.

Figure 3.1: Structure of ICPC

Components	Chapters															
	A	B	D	F	H	K	L	N	P	R	S	T	U	W	X	Y	Z
1. Symptoms, complaints																	
2. Diagnostic,screening prevention																	
3. Treatment, procedures medication																	
4. Test results																	
5. Administrative																	
6. Other																	
7. Diagnoses,disease																	

A	General	L	Musculoskeletal	U	Urinary
B	Blood, blood forming	N	Neurological	W	Pregnancy, family planning
D	Digestive	P	Psychological	X	Female genital
F	Eye	R	Respiratory	Y	Male genital
H	Ear	S	Skin	Z	Social
K	Circulatory	T	Metabolic, endocrine, nutrition		

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Component 1 provides rubrics for symptoms and complaints. It drew on the National Ambulatory Medical Care Survey/Reason for Visit Classification (NAMCS/RFV) 2,3 and on the RFE-C developed by the WHO working party.2,4,5. Rubrics in this component can be used to describe presenting symptoms, and are valuable for describing the problem under management (in a problem list in the medical record) when the condition is as yet ill-defined (eg: general ill-feeling; feeling tired).

Component 7 is the diagnoses/disease component in each chapter. This component will be the one most often used when you have sufficient information to arrive at a diagnosis in the medical record or problem list. It is based on the ICHPPC-2 and most rubrics are directly comparable. However the psychological and social chapters of ICPC are drawn from problem lists developed by the WHO sponsored Triaxial Classification Group 6,7.
Within this diagnostic component are five sub groups which are not numerically uniform across chapters:

- infectious diseases;
- neoplasms;
- injuries;
- congenital anomalies;
- other diseases.

Components 1 and 7 in ICPC function independently in each chapter and either can be used to code patient RFEs, presenting symptoms, or problems managed.
Components 2-6 are common throughout all chapters, each rubric being equally applied to any body system.
Component 2 covers diagnostic screening, prevention. It is useful when there is no underlying pathology for the problem under management eg: immunisation, check up (partial or full); advice and health instruction.
Component 3, treatment, procedures and medication. This component should rarely if ever be used to describe a problem under management as it covers the processes involved in patient care. However for those who wish to code procedures as well as problems, these codes will prove very useful.
Components 2 and 3 are based broadly on the ICD-9 Procedures in Medicine 8 and are heavily influenced by the International Classification of Process in Primary Care (IC-Process-PC).9
Component 4, Test results and Component 5, Administrative, provide somewhere to put those difficult problem labels which frequently have no pathology (eg: completing a patient's application for a passport would fall into Component 5).
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The structure of ICPC represents a move away from the combined anatomical and aetiology based structure of ICD. For example, where ICD includes a separate chapter for neoplasms, one for infections and infestations, and another for injuries, such problems are distributed among chapters in ICPC, depending on the body system to which they belong. Regrouping of the rubrics (eg for all neoplasms in all body systems) can still be undertaken across chapters if analysis of totals is required. Grouping is further discussed in Section 5.

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SECTION 4:

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ABOUT ICPC-2 PLUS

This section has been based on the following paper:

Development of a database for the International Classification of Primary Care, for direct entry. H Britt.

Presented to the 14th WONCA WORLD CONFERENCE, Hong Kong. June 1995.

Background to ICPC PLUS

The International Classification of Primary Care, or ICPC, was designed by the WONCA Classification Committee, primarily for use by the health care provider at the time of the consultation on paper based records.

The Family Medicine Research Unit (FMRU), University of Sydney has however used it in the centralised coding of patient reasons for encounter (RFEs) and problems managed in the Australian Morbidity and Treatment Survey (AMTS)[1] and in a popular Quality Assurance option, the Morbidity and Therapeutic Index (MTI). The FMRU have secondarily coded over 3/4 of a million patient RFEs and equivalent numbers of problems managed from paper based encounter records completed by general practitioners throughout Australia.

In the early stages of this paper based coding, it was evident that high inter and intra coder reliability was difficult to attain with ICPC. Errors in the index were noted and the classification's layout was sometimes confusing. But more importantly the ICPC's alphabetical index was found to be **inadequate** for reliable coding of many terms commonly recorded by GPs.

From 1991-97 thousands of terms were added by the FMRU to the ICPC index to facilitate access to the correct code. When unsure of where to place a term in ICPC, the Chairman of the WONCA Classification Committee was referred to, who by reference to ICD-9/10, selected the correct code. Utilising this mechanism the index continued its expansion on the basis of terminology used by Australian GPs, to describe patient RFEs and diagnoses.

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Development of the computerised database

The FMRU found that using ICPC with a widely expanded index worked well in a centralised paper based coding system and provided sufficient specificity for epidemiological data analysis. However, in the absence of any other acceptable classification system, the unit came under increasing pressure from GPs to adapt ICPC for computer usage in the clinical primary care setting.

One of the major problems with using ICPC for computerised medical systems, was its lack of specificity in some areas.

For epidemiologists it may be adequate to count the number of patients or encounters with an "other viral illness" (i.e. the number of A77's that arise). However, in a clinical setting the practitioner must be able to differentiate between the 33 viral illnesses which fall into this rubric:

A77 - Other viral illness

For Example, if you practice in one of our sub-tropical areas, it may be very important to be able to identify the patients who are suffering specifically from Ross River Fever, not just "other viral illness".

There are two ways around the problem, neither ideal:

1. Select all records including A77 then use a word search engine to find all records involving Ross River Fever... and hope you have never mis-spelt it.
2. Create another level in the hierarchy.

When developing ICPC PLUS (a computerised classification system derived from ICPC) some users of ICPC suggested that further hierarchical layers should be added for increased specificity. However ICPC was not designed for such extension.

Using hypertension as an example, a possible hierarchy may have one code at the upper level for hypertension (not otherwise stated). The next level may be defined as "primary" or "secondary". At the third level it may be "benign" or "malignant" and at the fourth level "with/without target organ involvement" (see Figure 4.1). Specific target organ involvement could be differentiated at the next level.

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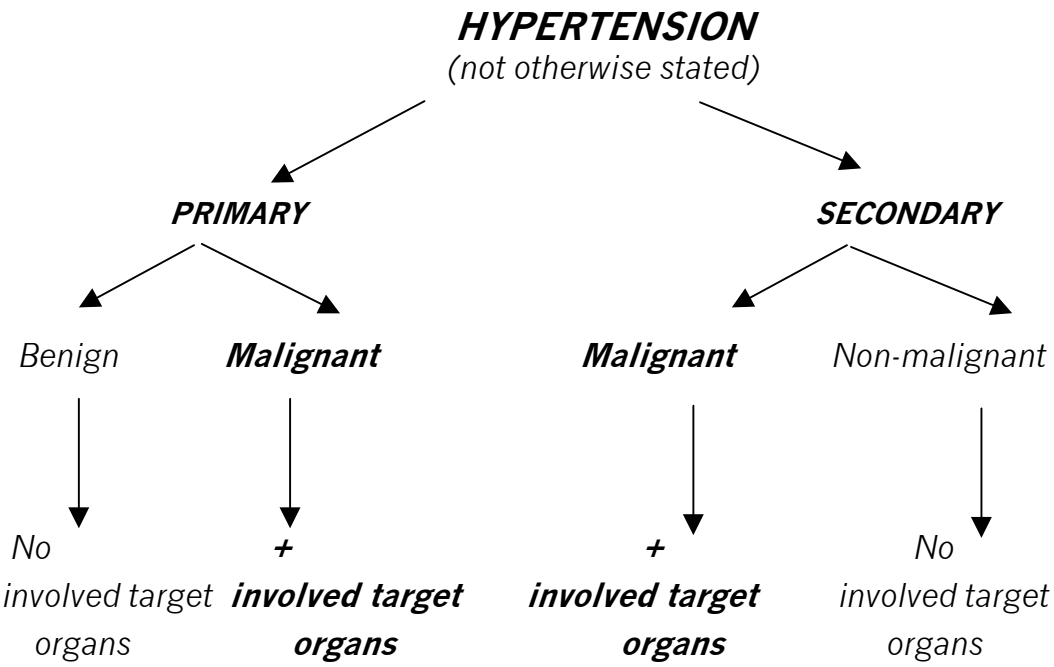
In ICPC there are already **two** codes for hypertension, one **without complications** and one **with involvement of target organs**. Both of these rubrics cross multiple levels of the hierarchy.

FIGURE 4.1: A possible hierarchy for the diagnosis of hypertension.



Extension of the hierarchy is further complicated by lack of agreement about definitions and synonymous terms, even within one country. Using ***Diabetes*** *as an example (see Figure 4.2) we could probably gain clinician consensus that: Type I diabetes is synonymous with insulin dependent diabetes, and that IDDM is an acceptable acronym; that Type II diabetes is synonymous with non-insulin dependent diabetes and NIDDM is an acceptable acronym.*

However, the extent to which the remaining terms listed in Figure 4.2 are synonymous with either of these labels is questionable. Some people would state that "juvenile onset diabetes" equates with Type I. Others would disagree, stating that Type I diabetes can also be adult onset. In the long term, agreement between practitioners, (both nationally and internationally), regarding definitions and synonyms may be reached. Until such time, creating a hierarchical structure under the upper level of (e.g.) "diabetes" is not possible.

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Figure 4.2 Possible terms in the Diabetes Mellitus group

Diabetic coma
Diabetes Mellitus (NOS)
Diabetes; complicated
Non Insulin dependent diabetes
Insulin dependent diabetes
Juvenile onset diabetes
Adult onset diabetes
Diabetes:Type I
Diabetes:Type II

Figure 4.3 - ICPC CODE A77 - Other viral illness

Keyword	Term Description	ICPC Code	Term Code
VIRAL	Adenovirus	A77	001
ADENOVIRUS	Adenovirus	A77	001
VIRUS	Adenovirus	A77	001
COWPOX	Cowpox	A77	024
DISEASE	Coxsackie virus	A77	003
COXSACKIE	Coxsackie virus	A77	003
VIRAL	Coxsackie virus	A77	003
VIRUS	Coxsackie virus	A77	003
HERPANGINA	Coxsackie virus	A77	003
DENGUE	Dengue	A77	002
VIRUS	Dengue	A77	002
VIRAL	Dengue	A77	002
DISEASE	Disease;hand foot & mouth	A77	004
HANDFOOT	Disease;hand foot & mouth	A77	004
COXSACKIE	Herpangina	A77	008
VIRAL	Herpangina	A77	008
VIRUS	Herpangina	A77	008
HERPANGINA	Herpangina	A77	008
VIRUS	Herpes	A77	023
VIRAL	Herpes	A77	023
HERPES	Herpes	A77	023
VIRAL	Infection;viral	A77	010
INFECTIONS	Infection;viral	A77	010
PSITTACOSI	Ornithosis	A77	011
ORNITHOSIS	Ornithosis	A77	011
ORNITHOSIS	Psittacosis	A77	016
PSITTACOSI	Psittacosis	A77	016
VIRUS	Rabies	A77	012
RABIES	Rabies	A77	012
VIRAL	Rabies	A77	012
FEVER	Ross River fever	A77	013
ROSSRIVER	Ross River fever	A77	013
VIRAEMIA	Viraemia	A77	017
VIRUS	Viraemia	A77	017
BLOOD	Viraemia	A77	017
VIRAL	Viraemia	A77	017
VIREMIA	Viraemia	A77	017
ILLNESS	Viral illness	A77	005
DISEASE	Viral illness	A77	005
VIRAL	Viral illness	A77	005
VIRUS	Virus	A77	020
FEVER	Yellow fever	A77	007
VIRAL	Yellow fever	A77	007
VIRUS	Yellow fever	A77	007
YELLOW	Yellow fever	A77	007

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ICPC PLUS

The extended medical term index developed from the GP encounter forms was entered in a SQL relational database.

ICPC PLUS term and code creation

Terms codes**:** As each term was entered into the database, the computer automatically allocated a term code. (eg: in Fig. 4.3: Viral illness = term code 005 within ICPC code A77). Thus each term has a unique identifier (A77023) which allows storage of the more specific term in the medical record.

Keywords: For each term, one or more **keywords** were allocated.
eg: in Fig 4.3: Term code 005 has three keywords by which access can be gained to that term: vira, illness and disease. Therefore, while each term within any one ICPC rubric has a unique code, a GP may, on different occasions, use different keys to access that term.

The GP may choose to describe a single medical concept in different terms on specific occasions. (e.g. "Diabetes Type I" and "Insulin dependent diabetes"), and his/her term selection should be saved in the medical record - not changed to the description of the ICPC rubric.

Note that the terms are listed in term code order which is derived purely from the order of entry. There is only one term code per term, irrespective of the number of keywords. New keywords and additional codes are being added and will continue to be added on request.

In ICPC PLUS, as in any other indexed system, a single keyword can lead to multiple concepts and at times, to multiple ICPC rubrics, and these should be offered as a pick list. For example, if you enter the term diab or diabetes, the picklist (all the terms attached to diabetes - in the second column in Figure 4.2) should appear together with others (such as diabetes in pregnancy) which do not belong with code T90.

The concept follows that used in the Read Clinical Codes. For the clinician, the exercise is one of terming, rather than coding. What secondary coders do (i.e. medical records coding clerks in hospitals) is find the recorded medical term and allocate the correct code to the term. In contrast, this system allows the practitioner to select the TERM most suitable to his/her needs, from the pick list. The computer **transparently** attaches the correct ICPC code for the concept and the code number of the selected term, i.e. "terming" rather than "coding". To all intents and purposes, you should be relatively unaware of the coding process.

Distribution of ICPC/ICPC-2

Permission was sought from WONCA to offer the database to software houses for wider application in general practice. While some GPs were already using ICPC in non-commercial GP data systems, in the main they were using unlicensed copies of ICPC. Further, in many cases, they used idiosyncratic adaptations which resulted in non-comparable data.

In an effort to improve the standardised use of the classification, and to ensure copyright of the ICPC/ICPC-2 was upheld, WONCA provided the FMRU with the exclusive license for the distribution of ICPC/ICPC-2 in electronic form in Australia and the Pacific Basin.
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ICPC-2 PLUS

ICPC PLUS broke new ground when it was first released in 1991. It was the first computerised classification system that had been specifically designed for Australian general practice and primary care. It has been implemented by a number of software suppliers in clinical systems across the nation and has an End User base that is rapidly growing and diversifying.

With the advent of the World Organisation of Family Doctors release of a revised edition of ICPC the Family Medicine Research Unit has created a second version of ICPC PLUS, namely ICPC-2 PLUS.

This new revised version was developed with continued consultation with the Chairman of the WONCA classification committee. It maintains its predecessors structure of terms and process of keyword allocation approach to classification as a terming rather than coding process

Development of ICPC-2 PLUS

The conversion process from ICPC PLUS to ICPC-2 PLUS was a 3 stage process due to the significant changes in the structure of ICPC-2. A number of ICPC rubrics were deleted in ICPC-2 and a number of new rubrics were added to the classification.

Firstly the final version of ICPC PLUS was copied into a new database that contained ICPC-2's structure and revised rubrics. ICPC PLUS terms located in rubrics that had been deleted in ICPC-2 were then moved to applicable ICPC-2 rubrics and their path mapped. Finally all new ICPC-2 rubrics were identified and terms added to them.

In particular, there were significant additions made in the areas of therapeutic and diagnostic procedures, psychological counseling and referrals to specialists and allied health professionals.

Map creation

Through this entire process of term movement a map was developed to convert retrospective data collected by End Users of ICPC PLUS into ICPC-2 PLUS. Such a map allows users to access all information previously collected in ICPC PLUS in a valid ICPC-2 PLUS term.

Once the conversion from ICPC PLUS to ICPC-2 PLUS was complete the following steps were undertaken as part of the ongoing development of the extended vocabulary:

A number of new terms were added in response to user requests and the Units own review process:-

- Significant revision of keywords and term access pathways was undertaken
- Picklist structure and presentation was targeted for refinement
- Tests ordered (particularly pathology and imaging) were expanded

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Analysing stored information with ICPC PLUS

Getting the data in to a medical record system in a classified form is of course only the first part of the process. There is no point in entering the information if you are unable to draw it out in a useful manner. It is important that you utilise the conversion map provided to your software developer to transfer any data collected in ICPC PLUS into ICPC-2 PLUS terms before you begin any data analysis.

Sorting at ICPC-2 rubric level

This is the easiest method of identifying a specific group of patients in your practice.

You want a list of all your patients who have attended your practice for uncomplicated hypertension:

Enter ***hypertensi*** and you will find the normal picklist associated with that keyword; highlight the one you want ***("hypertension uncomplicated")*** and ask the computer to provide the list of patients having that entry.

Alternatively you may wish to identify the ICPC-2 *code* for *uncomplicated hypertension (K86)* and then ask for the list of all records having that code attached.

Sorting at multiple rubric level

While it is useful to be able to sort your stored data at individual rubric level (as above), sometimes you may want to identify a group of patients who have any one of multiple diagnoses or symptoms.

Example 1
You want to identify all patients in the practice who have attended for uncomplicated hypertension (K86); hypertension with complications (K87); and elevated blood pressure without diagnosis of hypertension (K85). You would search for all records which include ***any one*** *of these three codes.*

Example 2
When viewing the relative frequency of presentations of rash, there are two symptom codes available to represent this concept: localised skin rash, coded as S06 and generalised skin rash, coded as S07. If you wanted to identify all the patients who had presented with skin rash (generalised or localised) both codes would need to be searched.

For these more general concepts which involve multiple ICPC-2 rubrics, you can also utilise the list of **Code Groupers** provided in Section 5 to ensure all cases will be selected. These code groupers have been provided to software developers so you should be able to view the grouper list on your computer or select them automatically if your software allows.

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Revised components

Analysing your records by CHAPTER-COMPONENT **Groupers** you can identify the codes to be included when analysing on the basis of broader medical constructs.

As described in Section 3, the ICPC-2 is divided into seven components which are common to all chapters, only components 2-6 being made up of rubrics which can be applied equally in all chapters. Components 1 (symptoms) and 7 (diagnoses) differ in each chapter according to the most frequent symptoms and diagnoses which occur in each body system or psychosocial area.

While working with ICPC-2 it became clear to the Family Medicine Research Unit that the division between the two components was not always correct. Some diagnostic labels (e.g. paronychia; warts) had been included in the symptom section. This was particularly so in the skin chapter where there were insufficient codes available in the diagnostic section. In other cases symptoms were included in the diagnostic component *(eg: K85; high blood pressure without a diagnosis of hypertension).*

Further, attempts had clearly been made by the Classification Committee to subdivide the diagnostic component in a uniform manner across chapters, into infections, neoplasms, injuries, congenital anomalies, and other diagnoses. However, due to the variable extent to which each of these types of problems applied in each body system, the range of numerical codes falling into each sub-group varied between chapters. This meant that analysis of a sub-group across chapters (eg: all injuries; all neoplasms) could not be undertaken by a simple selection of common numerals across all chapters.

A detailed review of the component breakdown was undertaken and under the guidance of the Chairman of the WONCA Classification Committee rubrics were re-allocated to their correct component and a more detailed component breakdown created.

The new categorisation includes **eleven components**, the original diagnostic component (component 7) having been further broken down into the sub-groups mentioned above. A chart of the new components by chapter, including lists of all codes which should be included in each cell is shown in your User Guide. This chart has been supplied to all software developers utilising ICPC-2 and should therefore be included in your program in some form.

Some examples of analyses using chapter-component combinations are:

- All patients treated for any injury over the past year (All chapters- Component 10);
- All patients managed for an infection of the skin (Chapter S - Comp 8) in the last month;
- All male patients managed for a male genital disease (Chapter Y - component 7 [made up of components 8-12]).

Analysis using part of an ICPC rubric

When you are only interested in one part of an ICPC rubric: first view the list of terms available with their varied term keys, select all those which you feel should be included and select these term codes for inclusion in the analysis.

For example:
*You wish to send a recall letter to all patients who require DPT immunisations:- review the list of all terms for *44 and select those which you feel should be included in this sub-group. If the software allows, you could select on a variety of other fields as well, e.g. all female patients, aged 0-6 years.*

REFERENCES

1. *Bridges-Webb C, Britt H, Miles DA, Neary S, Charles J, Traynor V. Morbidity and treatment in general practice. Med J Aust 1992; 157 (19 Oct Spec Supl): S1-S56*

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SECTION 5:

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HINTS FOR USING ICPC-2 PLUS

Getting Started

Firstly, to get a "feeling" for the classification you are about to use, read the background (particularly the structure of the coding frame, Sections 3 & 4).

"Terming' with ICPC-2 Plus

ICPC-2 PLUS utilises a technique of 'terming' rather than 'coding' to summarise data. '***Terming***' refers to the entry of a few key letters or a brief ***keyword*** to access a picklist of possible terms which may be used to describe a particular medical concept (see over).

When a term is selected the computer transparently attaches the correct ICPC-2 PLUS code number. In contrast '***coding***' is a much more laborious task which involves interpretation of the medical record, looking up, selecting and applying the most appropriate code.

Keywords	**Term ICPC**	**Code No.**
Speaking	*Unable (to); speak*	*N19 002*
Speech		
Unable		
Inability		
Talk		
Keywords that can *be used to access a picklist of related terms*	Medical concept you *wish to describe*	Automatically *allocated when you select a term*

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Term organisation

To facilitate the reading of 'picklists' the terms in ICPC-2 PLUS are generally organised using two basic structures:

1. 'Common usage' expression eg. Irritable bowel syndrome or
2. 'Problem or Procedure; type; site' organisation. eg. Pain;cardiovascular; chest.

The Problem or Procedure is usually the first word to appear in the term which provides a 'generic' description of the issue to be coded eg. pain. These 'first words' may be used as keywords when a comprehensive list of all the terms under that generic description is required.

Problems include words such as lesion, inability, infection, anaemia, fracture etc.

Procedures include words such as excision, destruction, test , admin etc. (see Section 6 for a list of the standard process components of ICPC - components 2 to 6).

Type usually includes words such as acute, chronic, benign, malignant etc. These are often not designated keywords unless they are particularly relevant to a term. The problem or procedure 'type' facilitates terming because it provides a secondary level of organisation of terms on a picklist.

Site identifies the location of the problem or procedure eg. chest, arm, leg, heart etc. Selecting a 'site' as a keyword will often produce a long 'picklist' of terms. This is useful when identifying terms related to a specific site.

Acronyms you see in ICPC-2

The following acronyms are generally **not** used in ICPC-2 terms:

NOS: Not otherwise specified (or in clinical terms - not yet able to be more specific),
NEC: Not elsewhere classified (or in clinical terms - not able to be classified more precisely within the options

Levels of specificity are usually indicated by the **type** or **site** part of the term. If this level of specificity is not included then the term is assumed to include the 'not otherwise specified'. eg. the term 'hypertension' is equivalent to the previously used 'hypertension;NOS'.

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Keywords in ICPC-2 PLUS

In addition to the development of a more comprehensive list of Keywords, a number of changes have been implemented regarding keywords to provide easier access to terms. Following are some hints specifically related to keyword usage:

Avoid spaces, dashes or slashes within Keywords: To provide greater uniformity of keyword syntax all spaces, dashes and slashes have been deleted.

No slash	S/E replaced with SE
No dash	POST-OP replaced with POSTOP CHECK-UP replaced with CHECKUP SIDE-EFFECT replaced with SIDEEFFECT X-RAY replaced with XRAY
No space	HIGH BLOOD replaced with HIGHBLOOD POST TERM replaced with POSTTERM CIN 1replaced with CIN1 PORT WINE replaced with PORTWINE

Use singular keywords instead of plural

Eg. TOE instead of TOES
INJURY instead of INJURIES
TEST instead of TESTS

NB. You will see that the keyword listing provided in 'Appendix A' uses pleural rather than singular syntax. In general, the keywords on the list are the longest version of the most suitable keyword. The list has been created this way as a precaution for users who might forget to use singular keywords. It is advised, however, that users adopt generally, a practice of entering keywords in their singular form.

Keyword selection. If you cannot find the term you require consider:

spelling....
(ICPC-2 PLUS generally uses Australian English rather than American eg. Oesophagus NOT esophagus, immunisation NOT immunization)

entering a shorter version of the keyword.... eg. Arteri instead of arteriosus, thrombo instead of thrombocytic. The shorter the keyword the wider the picklist.

a different form of the word .... e.g. aged or aging, allergic or allergy, absent or absence, depression or depressive or depressed

the term organisation....
ie. 'Common usage' or 'problem;type;site' structure.

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Analysing Information Stored With ICPC-2 PLUS

Code groupers

When trying to analyse the data you have recorded, the medical concept of interest may not always be contained within a single term. The example of hypertension was described earlier. Another example is the concept of depression: there are two codes available, one for the diagnosis of depression and one for the symptom of "feeling depressed". If searching for all patients with any form of depression you may wish to search the database for the occurrence of BOTH codes (P03 and P76). A list of code groupers is provided below in Figure 5.1 and should be available in your software.

Major chapter-component groups

These have been discussed earlier. The corrected chapter component groups are presented below (Figure 5.2) and have been provided to your software supplier for incorporation into your software.

GPs' Questions Answered

The FMRC has received several inquiries from users of ICPC-2 PLUS, which suggest that some hints about its application in a clinical setting may be helpful.

Question:

Can appendicectomy, mastectomy and hysterectomy be coded?

Answer: YES

These are all terms which refer to a process rather than to a diagnosis or problem under management. ICPC-2 PLUS now covers these procedural terms, if, you wish to record problems in this form in the History section of a record.

This brings up the issue of how the meaning of a medical term may change according to where it is in the medical record. If you record appendicectomy in the History section it clearly indicates it has been done in the past. If you record it in the Problem list it suggests you personally undertook an appendicectomy as part of the management of a problem (i.e. appendicitis).

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Question:

"How do I find a code for "pregnancy results" in my problem list?"

Answer:

Enter "pregnancy", "results", or "test" . Your picklist will offer a choice one of which is "W60" - Test;results;pregnancy, together with others specifically attached to a body system

However, in a problem based medical record, there should never be a diagnosis/ problem labelled in this manner. If a patient rings and asks for repeat scripts for multiple problems, each repeat should be recorded within the problem to which it is linked. e.g. Patient requests repeat scripts for hypertension and "the pill". You saw the patient recently and you do not need to see her again at this time. Within the patient's record, the problem list should already include problems called oral contraception and hypertension. You need to enter the "Pill" linked to the oral contraception and enter the anti-hypertensive against the hypertension. The "pregnancy test" should be recorded as part of the process of care.

Using the same argument, if a patient returns for test results, the problem you are managing is still the one for which you requested the tests (eg. diabetes; hypertension; amenorrhoea; general check up). The problem title should not be recorded as "test results". In the above example the problem label may be "question of pregnancy" or "late menses" or amenorrhoea".

Note: ICPC -2 is not designed to code the drug prescribed. However, we are developing a drug classification which will be offered to GPs when available.

Question:

Could you please include severity levels for some diseases (e.g. COAD) and more detail about site (location) for others?

Answer;

While it is possible to add this more specific information and provide a specific code for different severity levels or for site, this would enlarge ICPC-2 PLUS by about three or four fold. One of the advantages of ICPC-2 PLUS over systems such as Read Clinical Codes or ICD9-CM, is its size. The more codes we introduce the more difficult it becomes to find the term required as the pick list become longer.

In deciding on the level of detail to be included in ICPC-2 PLUS we have constantly kept in mind that the main use of a hierarchical coding system is for getting the data out in a meaningful manner.

E.g.: you may wish to identify all your patients who have presented with an injury. You may wish to further group these patients into sub-groups such as fractures, and still further into fractures of the ulna. Ideally, you may like to differentiate between fractured mid-shaft ulna versus those with a fractured proximal ulna.

However, incorporating this level of detail about site or severity throughout ICPC-2 PLUS would result in a large database that no longer has its 'economies of scale'. If you want more detail about your diagnosis than is provided by ICPC-2 PLUS your software should allow you to add free text to further describe problems. For severity levels we suggest that you speak to your software developer and request the introduction of an additional field for severity which you can use when you wish.

In summary: ICPC-2 PLUS will not be expanded to include severity and codes which specify site will remain at the upper level (i.e. ulna) rather than be expanded (i.e. to mid-shaft versus proximal).

Question:

How do I know which keyword is best?

Answer;

Some keywords such as check, disease, pain, cyst, injury, are associated with many terms. As you get used to the lists provided with these terms, you can experiment with other key words which may provide a shorter pick list and so lead you to the desired term with less effort.

For example, for a diagnosis of "whiplash":- if you enter "injury" as your keyword you will be presented with a long picklist (about 81 options). A shorter list will present if you enter "neck" (13 options) or "whip" (2 options).

If you think that the key word you have entered is appropriate but the "pick list" is too narrow, then consider whether your key word could be made more "generic".

For example:
“Allerg” will pick up lists for both "allergic" and "allergy"
“Hypertensi” will pick up a list which includes "hypertension" and "hypertensive"
"Infecti" will pick up a list which includes "infections" infective" "infectious" etc.
"Degenerat" will pick up "degeneration and "degenerative"
"Diabet" will pick up "diabetes" and "diabetic"

Of course, as you get to know the range of terms in the database, you will learn to enter "infection" in full when you specifically do not want the choice of "infective” options on your pick list.

Allergies and sensitivities:

If you are using ICPC-2 PLUS to record allergies and sensitivities in a patient medical record or summary sheet, a variety of key words may be used such as: allerg, allergic; reaction; adverse; effect; sideeffect; SE.

Furthermore, if the allergy/sensitivity is related to antibiotics the generic drug name may be used as a key word:

eg: *"Penicillin" for Amoxycillin, Abbocillin etc;*
"Cephalosporin" for Keflex, Ceclor etc
"Macrolide" for Erythromycin, Rulide etc.

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Question:

“How do I find an ICPC-2 PLUS code for repeat scripts as a problem? “

Answer:

Code -50 (replace the dash with the associated ICPC-2 chapter) does allow the coding of "repeat script(s)" as a diagnosis. So if you enter "script" as the keyword, you will be offered a picklist of body systems to which the drug prescribed relates. (e.g. prescription: respiratory).

Question:

"What do I do when I can't find the term I want?"

Answer:

After considering spelling, keyword length and term organisation if you still can't find the term you want:-

In each software product, there should be a facility to enter the term in free text and apply a **temporary code - J99**. The term you record should be retained in the database and allocated a term code (so that the first time you use J99, the term you record will be saved as term number J99-001 and so on.) Your software should allow you to view your list of temporary terms. You could print out the list and post or fax it to the Family Medicine Research Centre so that the terms can be allocated to the correct ICPC-2 code and added to ICPC-2 PLUS with their term keys. The next upgrade you receive will therefore include the term, the correct code and term code. Your software should allow you to alter your original record to the correct code (of course always retaining the hidden audit trail of the change for medico-legal purposes).

Question:

“What do I do when I change a diagnosis?”

Answer:

This question brings up the concept of problem linkage over time through changes in diagnosis.

For example:
A patient presents with a headache, the problem is entered as "headache". At a later date, you decide that these headaches could more specifically be described as Migraine headaches (which has a different code in ICPC-2). This should not be entered as a new problem in your problem list. Rather your software should allow a change of label for the old problem of headache. Your software will include an audit trail (for legal purposes) which should include the old diagnosis and the date of change to the new.

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The aim of a *problem list* in a medical record or summary is to ensure that each problem is only recorded once. This means that each time you go to enter any information, you should view your problem list to check whether the problem is already on the list. Otherwise, double recording of the same problem with different labels can occur.

For example:
A patient arrives for Pap smear. You do a breast check as well and select "check up;partial;genital;F" (X31 003) from your pick-list. The patient's Pap smear was insufficient and re-test is required. You request the patient's re-attendance, and on this occasion only do the Pap smear. You may be tempted to enter this problem as “Pap smear” which will be allocated ICPC-2 PLUS code X37 001. If you look at your problem list, you now have two problems, both of which cover the same medical concept, one just being slightly more specific than the other. In fact, the follow-up visit for the Pap smear should have been entered under the old problem of "female genital check". When the results return they show an abnormality. You could then feel free to record an additional problem called “abnormal Pap smear” (X86 001), or if the Pap smear results were more specific:- CIN I (X86 005); CIN II (X86 006); CIN III (X86 032)

There are a few good examples in ICPC-2 which lend themselves to multiple recording of the same problem in different terms. These are usually cases where you have the choice of being more general or more specific. An example is where the patient presents after an accident, questioning whether his leg is fractured. You suspect it is and you send the patient for x-ray.

The problem at this point should be recorded as injury - leg (L81). As yet, you haven't sufficient information to label it as a fracture. When the patient returns, x-rays show a fracture. It is the same problem to the patient and therefore should not now be recorded as a new problem of "fractured femur" (L75). It should result in a change of diagnosis from injury (L81), to fracture (L75).

The Code Groupers listed later in this section will give you some idea of the more subtle choices which may present to you in selecting a medical term. E.g. osteoarthritis: there is one general OA code but others are more specifically identified by body part.

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Question:

What do I do when I want to write a diagnosis with a question mark (e.g. ? anaemia)

Answer;

This form of provisional diagnosis is often useful in your medical notes, as it reminds you of your thoughts about the symptoms at the previous consultation. However, a problem list should only contain the diagnosis or problem managed, described at the highest level of specificity allowed by the information available.

For Example:
The patient presents with symptoms of pallor and shortness of breath. After history and examination , you feel it is likely to be anaemia and send the patient off for blood tests. The recording of the problem should, at this stage be both pallor and shortness of breath - these are the problems you are investigating. Only when the results are returned and your diagnosis of anaemia is confirmed should the problem be recorded in such specific diagnostic terminology (linked as earlier suggested). If your software allows, this does not preclude the additional entry of ? Anaemia in free text in your notes, after that first consultation (i.e. not coded).

FUTURE PLANS FOR ICPC -2PLUS

Continued improvement of keywords and terms to facilitate easy access.

Extension of the agreement with WONCA, to allow the provision of other classifications as they become available. Possible additions include:- Functional Status Charts and the Duke University Severity Index. The aim will be to include new tools at no additional costs or at an "upgrade cost".

ICPC-2 has inclusion and exclusion criteria for the majority of problems. The possibility of applying these criteria in computer systems in the future is being considered by the FMRC.

Your input is extremely useful in the maintenance and ongoing development of ICPC -2 PLUS.

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SECTION 6:

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THE INTERNATIONAL CLASSIFICATION OF PRIMARY CARE - 2

SUMMARY OF MAIN CHANGES TO COMPONENTS 1 AND 7 FROM ICPC-1 TO ICPC-2

Only major changes are listed here; additions, change in meaning of the rubric, or transfer or deletion of a rubric. There are many other changes of detail to the titles of the rubrics which do not change the meaning, and are not listed here.

CODE TITLE ICPC-1	*CODE TITLE ICPC-2 (some abbreviated)*
A	
A05 GENERAL DETERIORATION	FEELING ILL
A11 (omitted by mistake from ICPC)	CHEST PAIN NOS
A12 ALLERGY/ALLERGIC REACTION	(transferred to A92)
A13 CONCERN ABOUT DRUG REACTION	CONCERN/FEARABOUT TREATMENT
A14 INFANTILE COLIC	(deleted, included in D01)
A15 EXCESSIVE CRYING INFANT	(deleted, included in A16)
A17 OTHER GEN SYMPT INFANT	(deleted, included in A16)
A18 (new rubric in ICPC-2)	CONCERN ABOUT APPEARANCE
A21 (new rubric in ICPC-2)	RISK FACTOR FOR MALIGNANCY
A23 (new rubric in ICPC-2)	RISK FACTOR NOS
A92 TOXOPLASMOSIS (deleted, included with A78)	ALLERGY/ALLERGIC REACT (transfer from A12)
A98 (new rubric in ICPC-2)	HEALTH MAINTENANCE/PREVENT MED
B	
B03 OTHER SYMPT LYMPH GLANDS	(deleted,included in B02)
B85 UNEXPLAINED ABNORMAL BLOOD TEST	(deleted,included in A91)
B86 OTHER HAEMATOLOGICAL ABNORMALITY	(deleted,included in B99)
D	
D07 (new rubric in ICPC-2)	DYSPEPSIA/INDIGESTION
D22 WORMS/PINWORMS/OTHER PARASITES	(transferred to D96)
D23 (transferred from D96)	HEPATOMEGALY
D96 HEPATOMEGALY	(transferred to D23)
D96 (changed rubric in ICPC-2)	WORMS/OTHER PARASITES

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K

K22 (new rubric in ICPC-2)	RISK FACTOR FOR CARDIOVASC DISEASE
K74 ANGINA PECTORIS	ISCHAEMIC HEART DISEASE WITH ANGINA
K76 OTHER AND CHRONIC ISCHAEMIC HEART DISEASE	ISCHAEMIC HEART DISEASE,HEART DISEASE W\O ANGINA
K80 ECTOPIC BEATS, ALL TYPES	CARDIAC ARRYTHMIA NOS
K81 HEART MURMER, NOS	HEART/ARTERIAL MURMER, NOS
K91 ATHEROSCLEROSIS	(included with K92 in ICPC-2) (Excl.Heart/Brain)
K91 (altered rubric in ICPC-2)	CEREBROVASCULAR DISEASE
K92 OTHER ARTERIAL OBSTRUCTION	ATHEROSCLEROSIS/PERIPH VASC DIS

L

L05 FLANK SYMPTOMS/COMPLAINTS	FLANK/AXILLA SYMPTOMS/COMPLAINTS
L06 AXILLA SYMPTOMS/COMPLAINTS	(deleted,included in L05)
L71 NEOPLASMS	MALIGNANT NEOPLASM
L83 SYNDROMES RELATED TO CERVICAL SPINE	NECK SYNDROME
L84 OSTEOARTHRITIS OF SPINE	BACK SYNDROME WITHOUT RADIATION
L86 LUMBAR DISC LESION, BACK PAIN	DISC LESION/BACK PAIN WITH RADIATION
L87 GANGLION JOINT/TENDON	BURSITIS/TENDONITIS/SYNOVITIS NOS
L97 CHRONIC INTERNAL KNEE DERANGEMENT (included with L99 in ICPC-2)	NEOPLASM,BENIGN/UNCERTAIN (split from L71 in ICPC-2)

N

N02 TENSION HEADACHE	(transferred to N95)
N08 (new rubric in ICPC-2)	ABNORM INVOLUNTARY MOVEMENT (split from N06)
N80 OTHER HEAD INJURY W\O SKULL FRACTURE	HEAD INJURY,OTHER
N95 (new rubric in ICPC-2)	**TENSION HEADACHE** (transferred from N02)

P

P21 OVERACTIVE CHILD, HYPERKINETIC	(transferred to P81)
P75 HYSTERICAL/HYPOCHONDRIACAL DISEASE	SOMATIZATION DISORDER
P77 SUICIDE ATTEMPT	SUICIDE/SUICIDE ATTEMPT
P81 (new rubric in ICPC-2)	**HYPERKINETIC DISORD** (transfer from P21)
P82 (new rubric in ICPC-2)	**POSTTRAUMATICSTRESS DISORD** (split from P02)
P86 (new rubric in ICPC-2)	ANOREXIA NERVOSA,BULIMIA (transferred from T06)

R

R22 SYMPTOM/COMPLAINT TONSILS	(deleted,included in R21)
R70 TUBERCULOSIS	(deleted,included in A70)
R72 STREP-THROAT/SCARLET FEVER	STREP THROAT (scarlet fever include A78)
R79 (new rubric in ICPC-2)	**CHRONIC BRONCHITIS** (transfer from R91)
R80 INFLUENZA WITHOUT PNEUMONIA	INFLUENZA
R82 PLEURISY	PLEURISY/PLEURAL EFFUSION (include pleural effusion from R93)
R91 CHRONIC BRONCHITIS	(transferred to R79)
R92 (new rubric in ICPC-2)	NEOPLASM RESPIRAT, UNCERT NATURE
R93 PLEURAL EFFUSION	(deleted,included in R82)

S

S11 OTHER LOCALIZED SKIN INFECTION	WOUND INFECTION,POST-TRAUMATIC
S79 OTHER BENIGN NEOPLASMS OF SKIN	NEOPLASM SKIN,BENIGN/UNCERTAIN
S80 OTHER UNSPECIFIED NEOPLASM SKIN	SOLAR KERATOSIS/SUNBURN
S94 INGROWING NAIL/OTHER DISEASE OF NAIL	INGROWING NAIL (oth disease of nail S99)

T

T06 ANOREXIA NERVOSA W/WO BULEMIA	transferred to P86)
T15 THYROID LUMP/MASS	(deleted,included in T81)
T88 RENAL GLYCOSURIA	(deleted,included in T99)
T89 (new rubric in ICPC-2)	DIABETES,INSULIN DEPENDENT
T90 DIABETES MELLITUS	DIABETES,NON-INSULIN DEPENDENT

U

U08 (new rubric in ICPC-2)	URINARY RETENTION

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W

W20 OTHER SYMPT/COMPLAINTS OF BREAST	(deleted,included in W19)
W21 (new rubric in ICPC-2)	**CONCERN BODY IMAGE IN PREGNANCY**
W77 OTHER NON-OBSTETRICAL CONDITION	(deleted)
W85 (new rubric in ICPC-2)	GESTATIONAL DIABETES

x

X22 (new rubric in ICPC-2)	CONCERN ABOUT BREAST APPEARANCE
X92 (new rubric in ICPC-2)	CHLAMYDIA INFECTION,GENITAL

STANDARD PROCESS COMPONENTS OF ICPC-2

Applicable in every chapter -
Replace dash (-) with Chapter Alpha code.

The dash (-) shown in first position must be replaced with the appropriate alpha code for each chapter.

Component 2 -DIAGNOSTIC AND PREVENTIVE PROCEDURES

-30 Medical Examination/Health Evaluation -Complete
-31 Medical Examination/Health Evaluation -Partial/Pre-op check
-32 Sensitivity Test
-33 Microbiological/Immunological Test
-34 Blood Test
-35 Urine Test
-36 Faeces Test
-37 Histological/Exfoliative Cytology
-38 Other Laboratory Test NEC
-39 Physical Function Test
-40 Diagnostic Endoscopy
-41 Diagnostic Radiology/Imaging
-42 Electrical Tracings
-43 Other Diagnostic Procedures
-44 Preventive Immunisations/Medications
-45 Observation/Health Education/Advice/Diet
-46 Consultation with Primary Care Provider
-47 Consultation with Specialist
-48 Clarification/Discussion of Patient's RFE/Demand
-49 Other Preventive Procedures/High Risk Medication, Condition

Component 3 -MEDICATION, TREATMENT, THERAPEUTIC PROCEDURES

-50 Medication-Prescription/Request/Renewal/Injection
-51 Incision/Drainage/Flushing/Aspiration/Removal Body Fluid (EXCL. Catheterisation -53)
-52 Excision/Removal Tissue/Biopsy/Destruction/Debridement/Cauterisation
-53 Instrumentation/Catheterisation/Intubation/Dilation
-54 Repair/Fixation-Suture/Cast/Prosthetic device (Apply/Remove)
-55 Local Injection/Infiltration
-56 Dressing/Pressure/Compression/Tamponade
-57 Physical Medicine/Rehabilitation
-58 Therapeutic Counselling/Listening
-59 Other Therapeutic Procedures/Surgery NEC

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Component 4 -RESULTS

-60 Results Tests/Procedures
-61 Results Examination/Test/Record/Letter from Other Provider

Component 5 -ADMINISTRATIVE

-62 Administrative Procedure

Component 6 -REFERRALS AND OTHER REASONS FOR ENCOUNTER

-63 Follow-up Encounter Unspecified
-64 Encounter/Problem Initiated by Provider/Post-op check
-65 Encounter/Problem Initiated by Other than Patient/Provider/Anxiety by third person not at encounter
-66 Referral to Other Provider/Nurse/Therapist/Social Worker (EXCL. M.D.)
-67 Referral to Physician/Specialist/Clinic/Hospital
-68 Other Referrals NEC/Assist at operation
-69 Other Reason for Encounter NEC

A GENERAL & UNSPECIFIED

Component 1 Complaints & Symptoms

A01 PAIN, GENERAL/MULTIPLE SITES
A02 CHILLS
A03 FEVER
A04 WEAKNESS/TIREDNESS GENERAL
A05 FEELING ILL
A06 FAINTING/SYNCOPE
A07 COMA
A08 SWELLING
A09 SWEATING PROBLEMS
A10 BLEEDING, HAEMORRHAGE NOS
A11 PAIN, CHEST NOS
A13 CONCERN/FEAR ABOUT TREATMENT
A16 IRRITABLE INFANT
A18 CONCERN ABOUT APPEARANCE
A20 EUTHANASIA REQUEST/DISCUSSION
A21 RISK FACTOR FOR MALIGNANCY
A23 RISK FACTOR NOS
A25 FEAR OF DEATH, DYING
A26 FEAR OF CANCER, NOS
A27 FEAR OF OTHER DISEASE, NOS
A28 LIMITED FUNCTION/DISABILITY NOS
A29 GENERAL SYMPTOM/COMPLAINT, OTHER

Component 2 Diagnostic Screening & Preventive Procedures
Component 3 Medication, Treatment Procedures
Component 4 Test Results
Component 5 Administrative
Component 6 Referrals & Other Reason for Encounter
Component 7 Diagnosis/diseases

A70 TUBERCULOSIS
A71 MEASLES
A72 CHICKENPOX
A73 MALARIA
A74 RUBELLA
A75 INFECTIOUS MONONUCLEOSIS
A76 VIRAL EXANTHEM, OTHER

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A77 VIRAL DISEASE, OTHER/NOS

A78 INFECTIOUS DISEASE, OTHER/NOS
A79 MALIGNANCY NOS
A80 TRAUMA/INJURY, NOS
A81 MULTIPLE TRAUMA/INJURIES
A82 SECONDARY EFFECT OF TRAUMA
A84 POISONING BY MEDICAL AGENT
A85 ADVERSE EFFECT MEDICAL AGENT
A86 TOXIC EFFECT NON MEDICAL SUBSTANCE
A87 COMPLICATION OF TREATMENT
A88 ADVERSE EFFECTS PHYSICAL FACTORS
A89 EFFECTS PROSTHETIC DEVICE
A90 CONGENITAL ANOMALY NOS/MULTIPLE
A91 ABNORMAL RESULTS INVESTIGATION NOS
A92 ALLERGY/ALLERGIC REACTION NOS
A93 PREMATURE NEWBORN*
A94 PERINATAL MORBIDITY, OTHER
A95 PERINATAL MORTALITY#
A96 DEATH
A97 NO DISEASE
A98 HEALTH MAINTENANCE/PREVENTIVE MEDICINE
A99 GENERAL DISEASE NOS

*NOTE: Livebirth Infant under 37 weeks
NOTE: Death originating in utero or within 7 days of birth

B BLOOD, BLOOD FORMING ORGANS AND IMMUNE MECHANISM

Component 1 Complaints & Symptoms

B02 PAINFUL/ENLARGED LYMPH GLAND(S)
B04 BLOOD SYMPTOM/COMPLAINT
B25 FEAR OF AIDS
B26 FEAR OF CANCER BLOOD/LYMPH
B27 FEAR OF BLOOD/LYMPH DISEASE, OTHER
B28 LIMITED FUNCTION/DISABILITY BLOOD/LYMPH
B29 BLOOD AND IMMUNE MECHANISM SYMPTOM/COMPLAINT

Component 2 Diagnostic Screening & Preventive Procedures
Component 3 Medication, Treatment Procedures
Component 4 Test Results
Component 5 Administrative
Component 6 Referrals & Other Reason for Encounter
Component 7 Diagnosis/diseases

B70 LYMPHADENITIS, ACUTE
B71 LYMPHADENITIS, NON-SPECIFIC
B72 HODGKIN'S DISEASE/LYMPHOMAS
B73 LEUKAEMIA
B74 MALIGNANT NEOPLASM BLOOD, OTHER
B75 BENIGN/UNCERTAIN NEOPLASM BLOOD/LYMPH
B76 RUPTURED SPLEEN, TRAUMATC
B77 INJURY BLOOD/LYMPH/SPLEEN, OTHER
B78 HEREDITARY HAEMOLYTIC ANAEMIAS
B79 CONGENITAL ANOMALY BLOOD/LYMPH, OTHER
B80 IRON DEFICIENCY ANAEMIA
B81 ANAEMIA, VITAMIN B12/FOLATE DEFICIENCY
B82 ANAEMIA OTHER/UNSPECIFIED
B83 PURPURA/COAGULATION DEFECTS
B84 ABNORMAL WHITE CELLS
B87 SPLENOMEGALY
B90 HIV-INFECTION, AIDS
B99 BLOOD/LYMPH/SPLEEN DISEASE, OTHER

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D DIGESTIVE

Component 1 Complaints & Symptoms

D01 PAIN/CRAMPS, ABDOMINAL GENERAL
D02 PAIN, ABDOMINAL EPIGASTRIC
D03 HEARTBURN
D04 PAIN, RECTAL/ANAL
D05 PERIANAL ITCHING
D06 PAIN, ABDOMINAL LOCALIZED, OTHER
D07 DYSPEPSIA/INDIGESTION
D08 FLATULENCE/GAS/BELCHING
D09 NAUSEA
D10 VOMITING
D11 DIARRHOEA
D12 CONSTIPATION
D13 JAUNDICE
D14 HAEMATEMESIS/VOMITING BLOOD
D15 MELAENA
D16 RECTAL BLEEDING
D17 INCONTINENCE OF BOWEL
D18 CHANGE IN FAECES/BOWEL MOVEMENTS
D19 TEETH/GUM SYMPTOM/COMPLAINT
D20 MOUTH/TONGUE/LIP SYMPTOM/COMPLAINT
D21 SWALLOWING PROBLEMS
D23 HEPATOMEGALY
D24 ABDOMINAL MASS NOS
D25 ABDOMINAL DISTENSION
D26 FEAR OF CANCER OF DIGESTIVE SYSTEM
D27 FEAR OF DIGESTIVE DISEASE, OTHER
D28 LIMITED FUNCTION/DISABILITY DIGESTIVE
D29 DIGESTIVE SYMPTOM/COMPLAINT, OTHER

Component 2 Diagnostic Screening & Preventive Procedures
Component 3 Medication, Treatment Procedures
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Component 7 Diagnosis/diseases

D70 GASTROINTESTINAL INFECTION
D71 MUMPS
D72 VIRAL HEPATITIS
D73 GASTROENTERITIS, PRESUMED INFECTION
D74 MALIGNANT NEOPLASM STOMACH
D75 MALIGNANT NEOPLASM COLON/RECTUM
D76 MALIGNANT NEOPLASM PANCREAS
D77 MALIGNANT NEOPLASM DIGESTIVE, OTHER/NOS
D78 BENIGN/UNCERTAIN NEOPLASM DIGESTIVE
D79 FOREIGN BODY IN DIGESTIVE SYSTEM
D80 INJURY DIGESTIVE SYSTEM, OTHER
D81 CONGENITAL ANOMALY DIGESTIVE
D82 TEETH/GUM DISEASE
D83 MOUTH/TONGUE/LIP DISEASE
D84 OESOPHAGUS DISEASE
D85 DUODENAL ULCER
D86 PEPTIC ULCERS, OTHER
D87 STOMACH FUNCTION DISORDER
D88 APPENDICITIS
D89 INGUINAL HERNIA
D90 HIATUS HERNIA
D91 ABDOMINAL HERNIA, OTHER
D92 DIVERTICULAR DISEASE
D93 IRRITABLE BOWEL SYNDROME
D94 CHRONIC ENTERITIS/ULCERATIVE COLITIS
D95 ANAL FISSURE/PERIANAL ABSCESS
D96 WORMS/OTHER PARASITES
D97 LIVER DISEASE NOS
D98 CHOLECYSTITIS, CHOLELITHIASIS
D99 DISEASE DIGESTIVE SYSTEM, OTHER

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F EYE

Component 1 Complaints & Symptoms

F01 PAIN, EYE
F02 RED EYE
F03 EYE DISCHARGE
F04 VISUAL FLOATERS/SPOTS
F05 VISUAL DISTURBANCE, OTHER
F13 EYE SENSATIONS ABNORMAL
F14 EYE MOVEMENTS ABNORMAL
F15 EYE APPEARANCE ABNORMAL
F16 EYELID SYMPTOM/COMPLAINT
F17 GLASSES SYMPTOM/COMPLAINT
F18 CONTACT LENS SYMPTOM/COMPLAINT
F27 FEAR OF EYE DISEASE
F28 LIMITED FUNCTION/DISABILITY EYE
F29 EYE SYMPTOM/COMPLAINT, OTHER

Component 2 Diagnostic Screening & Preventive Procedures
Component 3 Medication, Treatment Procedures
Component 4 Test Results
Component 5 Administrative
Component 6 Referrals & Other Reason for Encounter
Component 7 Diagnosis/diseases

F70 CONJUNCTIVITIS, INFECTIOUS
F71 CONJUNCTIVITIS, ALLERGIC
F72 BLEPHARITIS/STYE/CHALAZION
F73 EYE INFECTIONS/INFLAMMATION, OTHER
F74 NEOPLASM EYE/ADNEXA
F75 CONTUSION/ABRASIONS EYE
F76 FOREIGN BODY IN EYE
F79 INJURY EYE, OTHER
F80 BLOCKED LACRIMAL DUCT OF INFANT
F81 CONGENITAL ANOMALY EYE, OTHER
F82 DETACHED RETINA
F83 RETINOPATHY
F84 MACULAR DEGENERATION
F85 CORNEAL ULCER (INCL HERPETIC)
F86 TRACHOMA
F91 REFRACTIVE ERROR
F92 CATARACT
F93 GLAUCOMA
F94 BLINDNESS
F95 STRABISMUS
F99 EYE/ADNEXA DISEASE, OTHER

H EAR

Component 1 Complaints & Symptoms

H01 PAIN, EAR/EARACHE
H02 HEARING COMPLAINT
H03 TINNITUS, RINGING/BUZZING EAR
H04 EAR DISCHARGE
H05 BLEEDING EAR
H13 PLUGGED FEELING EAR
H15 CONCERN ABOUT APPEARANCE OF EARS
H27 FEAR OF EAR DISEASE
H28 LIMITED FUNCTION/DISABILITY EAR
H29 EAR SYMPTOM/COMPLAINT, OTHER

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Component 2 Diagnostic Screening & Preventive Procedures

Component 3 **Medication, Treatment Procedures**
Component 4 **Test Results**
Component 5 **Administrative**
Component 6 **Referrals & Other Reason for Encounter**
Component 7 **Diagnosis/diseases**

H70 OTITIS EXTERNA
H71 ACUTE OTITIS MEDIA/MYRINGITIS
H72 SEROUS OTITIS MEDIA
H73 EUSTACHIAN SALPINGITIS
H74 CHRONIC OTITIS MEDIA
H75 NEOPLASM EAR
H76 FOREIGN BODY IN EAR
H77 PERFORATION EAR DRUM
H78 INJURY EAR, SUPERFICIAL
H79 INJURY EAR, OTHER
H80 CONGENITAL ANOMALY EAR
H81 EXCESSIVE EAR WAX
H82 VERTIGINOUS SYNDROMES
H83 OTOSCLEROSIS
H84 PRESBYACUSIS
H85 ACOUSTIC TRAUMA
H86 DEAFNESS
H99 EAR/MASTOID DISEASE, OTHER

K CARDIOVASCULAR

Component 1 **Complaints & Symptoms**

K01 PAIN, HEART
K02 PRESSURE/TIGHTNESS OF HEART
K03 PAIN, CARDIOVASCULAR NOS
K04 PALPITATIONS/AWARENESS OF HEART
K05 IRREGULAR HEARTBEAT, OTHER
K06 PROMINENT VEINS
K07 SWOLLEN ANKLES/OEDEMA
K22 RISK FACTOR FOR CARDIOVASCULAR DISEASE
K24 FEAR OF HEART DISEASE
K25 FEAR OF HYPERTENSION
K27 FEAR OF CARDIOVASCULAR DISEASE, OTHER
K28 LIMITED FUNCTION/DISABILITY CARDIOVASCULAR
K29 CARDIOVASCULAR SYMPTOM/COMPLAINT, OTHER

Component 2 **Diagnostic Screening & Preventive Procedures**
Component 3 **Medication, Treatment Procedures**
Component 4 **Test Results**
Component 5 **Administrative**
Component 6 **Referrals & Other Reason for Encounter**
Component 7 **Diagnosis/diseases**

K70 CARDIOVASCULAR SYSTEM INFECTION
K71 RHEUMATIC FEVER/HEART DISEASE
K72 NEOPLASM CARDIOVASCULAR
K73 CONGENITAL ANOMALY CARDIOVASCULAR
K74 ISCHAEMIC HEART DISEASE WITH ANGINA
K75 ACUTE MYOCARDIAL INFARCTION
K76 ISCHAEMIC HEART DISEASE WITHOUT ANGINA
K77 HEART FAILURE
K78 ATRIAL FIBRILLATION/FLUTTER
K79 PAROXYSMAL TACHYCARDIA
K80 CARDIAC ARRHYTHMIA NOS
K81 HEART/ARTERIAL MURMER NOS
K82 PULMONARY HEART DISEASE
K83 HEART VALVE DISEASE NOS

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K84 HEART DISEASE, OTHER
K85 ELEVATED BLOOD PRESSURE
K86 HYPERTENSION, UNCOMPLICATED
K87 HYPERTENSION, COMPLICATED

K88 POSTURAL HYPOTENSION (LOW BLOOD PRESSURE)
K89 TRANSIENT CEREBRAL ISCHAEMIA
K90 STROKE/CEREBROVASCULAR ACCIDENT
K91 CEREBROVASCULAR DISEASE (EXCL HEART/BRAIN)
K92 ATHEROSCLEROSIS/PERIPHERAL VASCULAR DISEASE
K93 PULMONARY EMBOLISM
K94 PHLEBITIS AND THROMBOPHLEBITIS
K95 VARICOSE VEINS OF LEG
K96 HAEMORRHOIDS
K99 CARDIOVASCULAR DISEASE, OTHER

L MUSCULOSKELETAL

Component 1 Complaints & Symptoms

L01 NECK SYMPTOM/COMPLAINT
L02 BACK SYMPTOM/COMPLAINT
L03 LOW BACK SYMPTOM/COMPLAINT
L04 CHEST SYMPTOM/COMPLAINT
L05 FLANK/AXILLA SYMPTOM/COMPLAINT
L07 JAW SYMPTOM/COMPLAINT
L08 SHOULDER SYMPTOM/COMPLAINT
L09 ARM SYMPTOM/COMPLAINT
L10 ELBOW SYMPTOM/COMPLAINT
L11 WRIST SYMPTOM/COMPLAINT
L12 HAND & FINGER SYMPTOM/COMPLAINT
L13 HIP SYMPTOM/COMPLAINT
L14 LEG/THIGH SYMPTOM/COMPLAINT
L15 KNEE SYMPTOM/COMPLAINT
L16 ANKLE SYMPTOM/COMPLAINT
L17 FOOT & TOE SYMPTOM/COMPLAINT
L18 PAIN, MUSCLE
L19 MUSCLE SYMPTOM/COMPLAINT NOS
L20 JOINT SYMPTOM/COMPLAINT NOS
L26 FEAR OF CANCER, MUSCULOSKELETAL
L27 FEAR OF MUSCULOSKELETAL DISEASE, OTHER
L28 LIMITED FUNCTION/DISABILITY MUSCULOSKELETAL
L29 MUSCULOSKELETAL SYMPTOM/COMPLAINT, OTHER

Component 2 Diagnostic Screening & Preventive Procedures
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Component 7 Diagnosis/diseases

L70 MUSCULOSKELETAL INFECTION
L71 MALIGNANT NEOPLASM MUSCULOSKELETAL
L72 FRACTURE: RADIUS/ULNA
L73 FRACTURE: TIBIA/FIBULA
L74 FRACTURE: HAND/FOOT BONE
L75 FRACTURE: FEMUR
L76 FRACTURE: OTHER
L77 SPRAINS & STRAINS OF ANKLE
L78 SPRAINS & STRAINS OF KNEE
L79 SPRAINS & STRAINS OF JOINTS NOS
L80 DISLOCATION & SUBLUXATION
L81 INJURY MUSCULOSKELETAL NOS
L82 CONGENITAL ANOMALY MUSCULOSKELETAL
L83 NECK SYNDROME (INCL OSTEOARTHRITIS)
L84 BACK SYNDROME WITHOUT RADIATING PAIN

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L85 ACQUIRED DEFORMITY OF SPINE
L86 BACK SYNDROME WITH RADIATING PAIN
L87 BURSITIS/TENDONITIS/SYNOVITIS NOS
L88 RHEUMATOID ARTHRITIS
L89 OSTEOARTHROSIS OF HIP
L90 OSTEOARTHROSIS OF KNEE
L91 OSTEOARTHROSIS, OTHER
L92 SHOULDER SYNDROME (INCL ARTHRITIS, OSTEOARTHRITIS)
L93 TENNIS ELBOW
L94 OSTEOCHONDROSIS
L95 OSTEOPOROSIS
L96 ACUTE INTERNAL DAMAGE KNEE
L97 BENIGN/UNCERTAIN NEOPLASM MUSCULOSKELETAL
L98 ACQUIRED DEFORMITY OF LIMB
L99 MUSCULOSKELETAL DISEASE, OTHER

N NEUROLOGICAL

Component 1 Complaints & Symptoms

N01 HEADACHE
N03 PAIN, FACE
N04 RESTLESS LEGS
N05 TINGLING FINGERS/FEET/TOES
N06 SENSATION DISTURBANCES, OTHER
N07 CONVULSIONS/SEIZURES
N08 ABNORMAL INVOLUNTARY MOVEMENTS
N16 DISTURBANCE SMELL/TASTE
N17 VERTIGO/DIZZINESS
N18 PARALYSIS/WEAKNESS
N19 SPEECH DISORDER
N26 FEAR OF CANCER OF NEUROLOGICAL SYSTEM
N27 FEAR OF NEUROLOGICAL DISEASE, OTHER
N28 LIMITED FUNCTION/DISABILITY NEUROLOGICAL
N29 NEUROLOGICAL SYMPTOM/COMPLAINT, OTHER

Component 2 Diagnostic Screening & Preventive Procedures
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Component 7 Diagnosis/diseases

N70 POLIOMYELITIS
N71 MENINGITIS/ENCEPHALITIS
N72 TETANUS
N73 NEUROLOGICAL INFECTION, OTHER
N74 MALIGNANT NEOPLASM NERVOUS SYSTEM
N75 BENIGN NEOPLASM NERVOUS SYSTEM
N76 UNCERTAIN NATURE NEOPLASM NERVOUS SYSTEM
N79 CONCUSSION
N80 INJURY HEAD, OTHER
N81 INJURY NERVOUS SYSTEM, OTHER
N85 CONGENITAL ANOMALY NEUROLOGICAL
N86 MULTIPLE SCLEROSIS
N87 PARKINSONISM
N88 EPILEPSY
N89 MIGRAINE
N90 CLUSTER HEADACHE
N91 FACIAL PARALYSIS/BELL'S PALSY
N92 TRIGEMINAL NEURALGIA
N93 CARPAL TUNNEL SYNDROME
N94 PERIPHERAL NEURITIS/NEUROPATHY
N95 TENSION HEADACHE
N99 NEUROLOGICAL DISEASE, OTHER

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P PSYCHOLOGICAL

Component 1 Complaints & Symptoms

P01 FEELING ANXIOUS/NERVOUS/TENSE
P02 ACUTE STRESS REACTION
P03 FEELING DEPRESSED
P04 FEELING/BEHAVING IRRITABLE/ANGRY
P05 SENILITY, FEELING/BEHAVING OLD
P06 SLEEP DISTURBANCE
P07 SEXUAL DESIRE REDUCED
P08 SEXUAL FULFILMENT REDUCED
P09 CONCERN ABOUT SEXUAL PREFERENCE
P10 STAMMERING, STUTTERING, TICS
P11 EATING PROBLEMS IN CHILDREN
P12 BEDWETTING, ENURESIS
P13 ENCOPRESIS/BOWEL TRAINING PROBLEM
P15 CHRONIC ALCOHOL ABUSE
P16 ACUTE ALCOHOL ABUSE
P17 TOBACCO ABUSE
P18 MEDICATION ABUSE
P19 DRUG ABUSE
P20 MEMORY DISTURBANCE
P22 CHILD BEHAVIOR SYMPTOM/COMPLAINT
P23 ADOLESCENT BEHAVIOUR SYMPTOM/COMPLAINT
P24 SPECIFIC LEARNING PROBLEM
P25 PHASE OF LIFE PROBLEM IN ADULT
P27 FEAR OF MENTAL DISORDER
P28 LIMITED FUNCTION/DISABILITY PSYCHOLOGICAL
P29 PSYCHOLOGICAL SYMPTOM/COMPLAINT, OTHER

Component 2 Diagnostic Screening & Preventive Procedures
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P70 DEMENTIA (INCL SENILE, ALZHEIMER)
P71 ORGANIC PSYCHOSIS, OTHER
P72 SCHIZOPHRENIA
P73 AFFECTIVE PSYCHOSIS
P74 ANXIETY DISORDER/ANXIETY STATE
P75 SOMATISATION DISORDER
P76 DEPRESSIVE DISORDER
P77 SUICIDE/SUICIDE ATTEMPT
P78 NEURASTHENIA, SURMENAGE
P79 PHOBIA, COMPULSIVE DISORDER
P80 PERSONALITY DISORDER
P81 HYPERKINETIC DISORDER
P82 POST TRAUMATIC STRESS DISORDER
P85 MENTAL RETARDATION
P86 ANOREXIA NERVOSA, BULIMIA
P98 PSYCHOSES NOS, OTHER
P99 PSYCHOLOGICAL DISORDERS, OTHER

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R RESPIRATORY

Component 1 Complaints & Symptoms

R01 PAIN, RESPIRATORY SYSTEM
R02 SHORTNESS OF BREATH, DYSPNOEA
R03 WHEEZING
R04 BREATHING PROBLEMS, OTHER
R05 COUGH
R06 NOSE BLEED/EPISTAXIS
R07 SNEEZING/NASAL CONGESTION
R08 NOSE SYMPTOM/COMPLAINT, OTHER
R09 SINUS SYMPTOM/COMPLAINT (INCL PAIN)
R21 THROAT SYMPTOM/COMPLAINT
R23 VOICE SYMPTOM/COMPLAINT
R24 HAEMOPTYSIS
R25 SPUTUM/PHLEGM ABNORMAL
R26 FEAR OF CANCER OF RESPIRATORY SYSTEM
R27 FEAR OF RESPIRATORY DISEASE, OTHER
R28 LIMITED FUNCTION/DISABILITY RESPIRATORY
R29 RESPIRATORY SYMPTOM/COMPLAINT, OTHER

Component 2 Diagnostic Screening & Preventive Procedures
Component 3 Medication, Treatment Procedures
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Component 7 Diagnosis/diseases

R71 WHOOPING COUGH
R72 STREP THROAT
R73 BOIL, ABSCESS NOSE
R74 UPPER RESPRATORY INFECTION, ACUTE
R75 SINUSITIS ACUTE/CHRONIC
R76 TONSILLITIS ACUTE
R77 LARYNGITIS/TRACHEITIS, ACUTE
R78 ACUTE BRONCHITIS/BRONCHIOLITIS
R79 CHRONIC BRONCHITIS
R80 INFLUENZA
R81 PNEUMONIA
R82 PLEURISY/PLEURAL EFFUSION
R83 RESPIRATORY INFECTION, OTHER
R84 MALIGNANT NEOPLASM BRONCHUS, LUNG
R85 MALIGNANT NEOPLASM RESPIRATORY, OTHER
R86 BENIGN NEOPLASM RESPIRATORY
R87 FOREIGN BODY IN NOSE/LARYNX/BRONCHUS
R88 INJURY RESPIRATORY, OTHER
R89 CONGENITAL ANOMALY RESPIRATORY
R90 HYPERTROPHY TONSILS/ADENOIDS
R92 UNCERTAIN NATURE NEOPLASM RESPIRATORY
R95 CHRONIC OBSTRUCTIVE PULMONARY DISEASE
R96 ASTHMA
R97 ALLERGIC RHINITIS
R98 HYPERVENTILATION SYNDROME
R99 RESPIRATORY DISEASE, OTHER

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S SKIN

Component 1 Complaints & Symptoms

S01 PAIN, TENDERNESS OF SKIN
S02 PRURITUS
S03 WARTS
S04 LUMP/SWELLING, LOCALISED
S05 LUMP/SWELLING, MULTIPLE
S06 RASH LOCALIZED
S07 RASH GENERALIZED
S08 SKIN COLOR CHANGE
S09 INFECTED FINGER/TOE
S10 BOIL/CARBUNCLE
S11 SKIN INFECTION, POST TRAUMATIC
S12 INSECT BITE/STING
S13 ANIMAL/HUMAN BITE
S14 BURNS/SCALDS
S15 FOREIGN BODY IN SKIN
S16 BRUISE/CONTUSION
S17 ABRASION/SCRATCH/BLISTER
S18 LACERATION/CUT
S19 INJURY SKIN, OTHER
S20 CORNS/CALOSITIES
S21 SKIN TEXTURE SYMPTOM/COMPLAINT
S22 NAIL SYMPTOM/COMPLAINT
S23 HAIR LOSS/BALDNESS (INCL ALOPECIA)
S24 HAIR/SCALP SYMPTOM/COMPLAINT
S26 FEAR OF CANCER OF SKIN
S27 FEAR OF SKIN DISEASE, OTHER
S28 LIMITED FUNCTION/DISABILITY SKIN
S29 SKIN SYMPTOM/COMPLAINT

Component 2 Diagnostic Screening & Preventive Procedures
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Component 7 Diagnosis/diseases

S70 HERPES ZOSTER
S71 HERPES SIMPLEX
S72 SCABIES AND OTHER ACARIASES
S73 PEDICULOSIS/SKIN INFESTATIONS, OTHER
S74 DERMATOPHYTOSIS
S75 MONILIASIS/CANDIDIASIS SKIN
S76 SKIN INFECTION, OTHER
S77 MALIGNANT NEOPLASM SKIN
S78 LIPOMA
S79 BENIGN/UNCERTAIN NEOPLASM SKIN
S80 SOLAR KERATOSIS/SUNBURN
S81 HAEMANGIOMA/LYMPHANGIOMA
S82 NAEVUS/MOLE
S83 CONGENITAL ANOMALY SKIN, OTHER
S84 IMPETIGO
S85 PILONIDAL CYST/FISTULA
S86 DERMATITIS, SEBORRHOEIC
S87 DERMATITIS, ATOPIC ECZEMA
S88 DERMATITIS, CONTACT/ALLERGIC
S89 DIAPER RASH
S90 PITYRIASIS ROSEA
S91 PSORIASIS
S92 SWEAT GLAND DISEASE
S93 SEBACEOUS CYST
S94 INGROWNING NAIL
S95 MOLLUSCA CONTAGIOSUM
S96 ACNE
S97 CHRONIC ULCER SKIN (INCL VARICOSE ULCER)
S98 URTICARIA
S99 SKIN DISEASE, OTHER

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T ENDOCRINE, METABOLIC AND NUTRITIONAL

Component 1 Complaints & Symptoms

T01 EXCESSIVE THIRST
T02 EXCESSIVE APPETITE
T03 LOSS OF APPETITE
T04 FEEDING PROBLEM OF INFANT/CHILD
T05 FEEDING PROBLEM OF ADULT
T07 WEIGHT GAIN
T08 WEIGHT LOSS
T10 GROWTH DELAY
T11 DEHYDRATION
T26 FEAR OF CANCER OF ENDOCRINE SYSTEM
T27 FEAR OF ENDOCRINE/METABOLIC DISEASE, OTHER
T28 LIMITED FUNCTION/DISABILITY ENDOCRINE/METABOLIC
T29 ENDOCRINE/METAB/NUTRITION SYMPTOM/COMPLAINT, OTHER

Component 2 Diagnostic Screening & Preventive Procedures
Component 3 Medication, Treatment Procedures
Component 4 Test Results
Component 5 Administrative
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Component 7 Diagnosis/diseases

T70 ENDOCRINE INFECTION

T71 MALIGNANT NEOPLASM THYROID
T72 BENIGN NEOPLASM THYROID
T73 NEOPLASM ENDOCRINE, OTHER/UNSPECIFIED
T78 THYROGLOSSAL DUCT/CYST
T80 CONGENITAL ANOMALY ENDOCRINE/METABOLIC
T81 GOITRE
T82 OBESITY (BMI > 30)
T83 OVERWEIGHT (BMI < 30)
T85 HYPERTHYROIDISM/THYROTOXICOSIS
T86 HYPOTHYROIDISM/MYXOEDEMA
T87 HYPOGLYCEMIA
T88 deleted transferred to t99
T89 DIABETES, INSULIN DEPENDENT
T90 DIABETES, NON-INSULIN DEPENDENT
T91 VITAMIN/NUTRITIONAL DEFICIENCY
T92 GOUT
T93 LIPID DISORDER
T99 ENDOCRINE/METABOLIC/NUTRITIONAL DISEASE, OTHER

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U UROLOGICAL

Component 1 Complaints & Symptoms

U01 DYSURIA/PAINFUL URINATION
U02 URINARY FREQUENCY/URGENCY
U04 INCONTINENCE, URINE
U05 URINATION PROBLEMS, OTHER
U06 HAEMATURIA
U07 URINE COMPLAINTS, OTHER
U08 URINARY RETENTION
U13 BLADDER SYMPTOM/COMPLAINT, OTHER
U14 KIDNEY SYMPTOM/COMPLAINT
U26 FEAR OF CANCER OF URINARY SYSTEM
U27 FEAR OF URINARY DISEASE, OTHER
U28 LIMITED FUNCTION/DISABILITY URINARY
U29 URINARY SYMPTOM/COMPLAINT, OTHER

Component 2 Diagnostic Screening & Preventive Procedures
Component 3 Medication, Treatment Procedures
Component 4 Test Results
Component 5 Administrative
Component 6 Referrals & Other Reason for Encounter
Component 7 Diagnosis/diseases

U70 PYELONEPHRITIS/PYELITIS
U71 CYSTITIS/URINARY INFECTION, OTHER
U72 URETHRITIS
U75 MALIGNANT NEOPLASM KIDNEY
U76 MALIGNANT NEOPLASM BLADDER
U77 MALIGNANT NEOPLASM URINARY, OTHER
U78 BENIGN NEOPLASM URINARY TRACT
U79 NEOPLASM URINARY TRACT NOS
U80 INJURY URINARY TRACT
U85 CONGENITAL ANOMALY URINARY TRACT
U88 GLOMERULONEPHRITIS/NEPHROSIS
U90 ORTHOSTATIC ALBUMINURIA/PROTEINURIA
U95 URINARY CALCULUS
U98 ABNORMAL URINE TEST NOS
U99 URINARY DISEASE, OTHER

W PREGNANCY, CHILDBEARING, FAMILY PLANNING

Component 1 Complaints & Symptoms

W01 QUESTION OF PREGNANCY
W02 FEAR OF PREGNANCY
W03 ANTEPARTUM BLEEDING
W05 PREGNANCY NAUSEA/VOMITING
W10 CONTRACEPTION, POSTCOITAL
W11 CONTRACEPTION, ORAL
W12 CONTRACEPTION, INTRAUTERINE
W13 STERILIZATION (FEMALE)
W14 CONTRACEPTION, OTHER
W15 INFERTILITY/SUBFERTILITY
W17 POST PARTUM BLEEDING
W18 POST PARTUM SYMPTOM/COMPLAINT
W19 BREAST/ LACTATION SYMPTOM/COMPLAINT
W21 CONCERN ABOUT BODY IMAGE RELATED TO PREGNANCY
W27 FEAR OF COMPLICATIONS OF PREGNANCY
W28 LIMITED FUNCTION/DISABILITY PREGNANCY
W29 PREGNANCY SYMPTOM/COMPLAINT, OTHER

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Component 2 **Diagnostic Screening & Preventive Procedures**
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Component 4 **Test Results**
Component 5 **Administrative**
Component 6 **Referrals & Other Reason for Encounter**
Component 7 **Diagnosis/diseases**

W70 PUERPERAL INFECTION/SEPSIS
W71 INFECTIONS COMPLICATING PREGNANCY
W72 MALIGNANT NEOPLASM RELATED TO PREGNANCY
W73 BENIGN/UNCERTAIN NEOPLASM RELATED TO PREGNANCY
W75 INJURY COMPLICATING PREGNANCY
W76 CONGENITAL ANOMALY COMPLICATING PREGNANCY
W78 PREGNANCY
W79 UNWANTED PREGNANCY
W80 ECTOPIC PREGNANCY
W81 TOXAEMIA OF PREGNANCY
W82 ABORTION, SPONTANEOUS
W83 ABORTION, INDUCED
W84 PREGNANCY HIGH RISK
W85 GESTATIONAL DIABETES
W90 UNCOMPLICATED DELIVERY, LIVEBIRTH
W91 UNCOMPLICATED DELIVERY, STILLBIRTH
W92 COMPLICATED DELIVERY, LIVEBIRTH
W93 COMPLICATED DELIVERY, STILLBIRTH
W94 PUERPERAL MASTITIS
W95 BREAST DISORDER IN PREGNANCY/PUERPERIUM, OTHER
W96 COMPLICATIONS OF PUERPERIUM, OTHER
W99 DISORDERS OF PREGNANCY/DELIVERY, OTHER

X FEMALE GENITAL

Component 1 **Complaints & Symptoms**

X01 PAIN, GENITAL (FEMALE)
X02 PAIN, MENSTRUAL
X03 PAIN, INTERMENSTRUAL
X04 PAINFUL INTERCOURSE (FEMALE)
X05 MENSTRUATION ABSENT/SCANTY
X06 MENSTRUATION EXCESSIVE
X07 MENSTRUATION IRREGULAR/FREQUENT
X08 INTERMENSTRUAL BLEEDING
X09 PREMENSTRUAL SYMPTOM/COMPLAINT
X10 POSTPONEMENT OF MENSTRUATION
X11 MENOPAUSAL SYMPTOM/COMPLAINT
X12 POSTMENOPAUSAL BLEEDING
X13 POSTCOITAL BLEEDING
X14 VAGINAL DISCHARGE
X15 VAGINAL SYMPTOM/COMPLAINT, OTHER
X16 VULVAL SYMPTOM/COMPLAINT
X17 PELVIS SYMPTOM/COMPLAINT (FEMALE)
X18 PAIN, BREAST (FEMALE)
X19 BREAST LUMP/MASS (FEMALE)
X20 NIPPLE SYMPTOM/COMPLAINT(FEMALE)
X21 BREAST SYMPTOM/COMPLAINT, OTHER (FEMALE)
X22 CONCERN ABOUT BREAST APPEARANCE (FEMALE)
X23 FEAR OF SEXUALLY TRANSMITTED DISEASE (FEMALE)
X24 FEAR OF SEXUAL DYSFUNCTION (FEMALE)
X25 FEAR OF CANCER GENITAL (FEMALE)
X26 FEAR OF CANCER OF BREAST(FEMALE)
X27 FEAR OF GENITAL/BREAST DISEASE, OTHER (FEMALE)
X28 LIMITED FUNCTION/DISABILITY GENITAL (FEMALE)
X29 GENITAL SYMPTOM/COMPLAINT, OTHER (FEMALE)

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Component 2 **Diagnostic Screening & Preventive Procedures**
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Component 5 **Administrative**
Component 6 **Referrals & Other Reason for Encounter**
Component 7 **Diagnosis/diseases**

X70 SYPHILIS (FEMALE)
X71 GONORRHOEA (FEMALE)
X72 GENITAL CANDIDIASIS (FEMALE)
X73 GENITAL TRICHOMONIASIS (FEMALE)
X74 PELVIC INFLAMMATORY DISEASE
X75 MALIGNANT NEOPLASM CERVIX
X76 MALIGNANT NEOPLASM BREAST (FEMALE)
X77 MALIGNANT NEOPLASM GENITAL, OTHER (FEMALE)
X78 FIBROMYOMA UTERUS
X79 BENIGN NEOPLASM BREAST (FEMALE)
X80 BENIGN NEOPLASM GENITAL (FEMALE)
X81 UNCERTAIN NATURE NEOPLASM GENITAL (FEMALE)
X82 INJURY GENITAL (FEMALE)
X83 CONGENITAL ANOMALY GENITAL (FEMALE)
X84 VAGINITIS/VULVITIS NOS
X85 CERVICAL DISEASE NOS
X86 ABNORMAL PAP SMEAR
X87 UTEROVAGINAL PROLAPSE
X88 FIBROCYSTIC DISEASE BREAST
X89 PREMENSTRUAL TENSION SYNDROME
X90 GENITAL HERPES (FEMALE)
X91 CONDYLOMATA ACUMINATA (FEMALE)
X92 CHLAMYDIA INFECTION, GENITAL (FEMALE)
X99 GENITAL DISEASE, OTHER (FEMALE)

Y MALE GENITAL

Component 1 **Complaints & Symptoms**

Y01 PAIN, PENIS
Y02 PAIN, TESTIS/SCROTUM
Y03 URETHRAL DISCHARGE (MALE)
Y04 PENIS SYMPTOM/COMPLAINT
Y05 SCROTUM/TESTIS SYMPTOM/COMPLAINT
Y06 PROSTATE SYMPTOM/COMPLAINT
Y07 IMPOTENCE NOS
Y08 SEXUAL FUNCTION SYMPTOM/COMPLAINT (MALE)
Y10 INFERTILITY/SUBFERTILITY (MALE)
Y13 STERILISATION (MALE)
Y14 FAMILY PLANNING, OTHER (MALE)
Y16 BREAST SYMPTOM/COMPLAINT (MALE)
Y24 FEAR OF SEXUAL DYSFUNCTION
Y25 FEAR OF SEXUALLY TRANSMITTED DISEASE (MALE)
Y26 FEAR OF CANCER GENITAL (MALE)
Y27 FEAR OF GENITAL DISEASE, OTHER (MALE)
Y28 LIMITED FUNCTION/DISABILITY GENITAL (MALE)
Y29 GENITAL SYMPTOM/COMPLAINT, OTHER (MALE)

Component 2 **Diagnostic Screening & Preventive Procedures**
Component 3 **Medication, Treatment Procedures**
Component 4 **Test Results**
Component 5 **Administrative**
Component 6 **Referrals & Other Reason for Encounter**
Component 7 **Diagnosis/diseases**

Y70 SYPHILIS (MALE)
Y71 GONORRHOEA (MALE)
Y72 GENITAL HERPES (MALE)
Y73 PROSTATITIS/SEMINAL VESICULITIS
Y74 ORCHITIS/EPIDIDYMITIS

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Y75 BALANITIS
Y76 CONDYLOMATA ACUMINATA (MALE)
Y77 MALIGNANT NEOPLASM PROSTATE

Y78 MALIGNANT NEOPLASM GENITAL, OTHER (MALE)
Y79 BENIGN/UNCERTAIN NEOPLASM GENITAL (MALE)
Y80 INJURY GENITAL (MALE)
Y81 PHIMOSIS/REDUNDANT PREPUCE
Y82 HYPOSPADIA
Y83 UNDESCENDED TESTICLE
Y84 CONGENITAL ANOMALY GENITAL (MALE)
Y85 BENIGN PROSTATIC HYPERTROPHY
Y86 HYDROCOELE
Y99 GENITAL DISEASE, OTHER (MALE) (INCL BREAST)

Z SOCIAL PROBLEMS

Component 1 Complaints & Symptoms

Z01 POVERTY/FINANCIAL PROBLEM
Z02 FOOD AND WATER PROBLEM
Z03 HOUSING/NEIGHBORHOOD PROBLEM
Z04 SOCIAL CULTURAL PROBLEM
Z05 WORK PROBLEM
Z06 UNEMPLOYMENT PROBLEM
Z07 EDUCATION PROBLEM
Z08 SOCIAL WELFARE PROBLEM
Z09 LEGAL PROBLEM
Z10 HEALTH CARE SYSTEM PROBLEM
Z11 COMPLIANCE/BEING ILL PROBLEM
Z12 RELATIONSHIP PROBLEM, PARTNERS
Z13 PARTNER BEHAVIOUR PROBLEM
Z14 PARTNER ILLNESS PROBLEM
Z15 LOSS OR DEATH OF PARTNER (INCL MARITAL BREAKDOWN)*
Z16 RELATIONSHIP PROBLEM, CHILD
Z18 ILLNESS PROBLEM WITH CHILD
Z19 LOSS OR DEATH OF CHILD
Z20 RELATIONSHIP PROBLEM, PARENT/FAMILY
Z21 BEHAVIOR PROBLEM, PARENT/FAMILY
Z22 ILLNESS PROBLEM, PARENT/FAMILY
Z23 LOSS/DEATH OF PARENT/FAMILY MEMBER
Z24 RELATIONSHIP PROBLEM, FRIENDS
Z25 ASSAULT/HARMFUL EVENT
Z27 FEAR OF SOCIAL PROBLEM
Z28 SOCIAL HANDICAP
Z29 SOCIAL PROBLEM NOS

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Appendix A

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Keyword List

APPENDIX A
Version 4/01

ICPC-2 PLUS - KEYWORDS

A comprehensive list of ICPC-2 PLUS keywords has been provided to enable users to acquire a firm understanding of keywords available and to assist in the selection of the most appropriate access route to a term.

1. You will note that in order to minimise space and reduce the total number of keywords created, shorter keywords are in some instances incorporated into a longer version of the word. For example:

   - ***Prostatectomy*** also incorporates the keyword ***prostate***
   - ***Rheumatica*** also incorporates the keyword ***rheumatic***
   - ***Toxicity*** also incorporates the keyword ***toxic***
   - ***Accessory*** also incorporates the keyword ***access***
   - ***Sores*** also incorporates the keyword ***sore***

2. The structure of the ICPC-2 PLUS 'keyword search' allows users to enter as much or little of a keyword as they require when creating a picklist. Thus the keyword list that follows is a guide to the *longest version* of a word that can be entered as a keyword. Shorter versions or the first few letters of the keyword may be entered if required. For example:

Keyword listed	**Shorter keywords you can enter**
prostatectomy	prostat
nerveroot	nerv
ulnar	ulna
swallowing	swallo
glandular	glan
earache	ear

Remember - entering a shorter keyword will make your picklist of terms longer.

If you are unable to find the term you require, refer to Section 5, (Terming' with ICPC-2 PLUS) for hints on keyword selection, or contact the FMRC.

The "Keyword List" has been removed from THIS electronic version.
The Full "APPENDIX A" is included in the hardcopy version sent to licensed users.
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Keyword Abbreviations

APPENDIX B **Version 04/01**

KEYWORD ABBREVIATIONS

To facilitate fast and easy access to terms, the latest version of ICPC-2 PLUS includes many new abbreviations as keywords. The list of abbreviations available in ICPC-2 PLUS is attached.

Where an acronym is not a recognisable part of a word (eg. CCF, COPD) you will find you gain speedy access to a very short picklist. However where the acronym can form part of a word it will not provide a mutually exclusive picklist of terms attached to that acronym. It will give you a picklist of terms attached to the acronym **and** those linked to keywords beginning with the same letters.

For example if you enter "CAL" (chronic airways limitation) as a keyword your picklist will consist of terms associated with keywords beginning with CAL (i.e. keywords such as calculus, callosite, callus and calf). In most cases however, the picklist provided will be significantly shorter than previous access routes.

Please continue to notify us of other commonly used abbreviations to be considered for inclusion. Your suggestions are extremely valuable.

The Keyword Abbreviations List has been removed from THIS electronic version.
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New Terms

APPENDIX C Version 07/2003

NEW TERMS

Since the last release a number of new terms have been added to ICPC-2 PLUS.

The objective of ICPC-2 PLUS is to provide a database of medical concepts (terms) that adequately cover the type and process of care GP's and community health provide, in a language that is readily utilised by them. ICPC-2 PLUS does not aim to provide a code for every condition identifiable, but provides a meaningful structural hierarchy to allow classification, grouping and analysis for common similar conditions.

If you are unable to find a term that adequately defines the medical concept you wish to describe, you can record it as a J99 code (see Section 7 - J codes and requested additional term keys).

Please fax or send copies of your J99 codes, other queries and requested codes to the FMRC for consideration by the ICPC-2 PLUS team. We look forward to hearing from you!

The New Terms list has been removed from THIS electronic version.
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Appendix D

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FMRC Code Groupers
by ICPC-2 chapter and component

APPENDIX D: FMRC CODE GROUPERS FOR ANALYSIS OF MORBIDITY DATA - by ICPC-2 chapters and components

The Grouper table has been removed from THIS electronic version.
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FMRC Code Groupers by ICPC-2 Diagnosis

APPENDIX E
Version 04/01

FMRC REPORT CODE GROUPERS USING ICPC-2 - by diagnosis

When searching for patients who have a particular condition, either for self audit or for patient recall, the problem/diagnosis for which you are searching may not always be contained within a single ICPC-2 PLUS term or even an ICPC-2 rubric.

To assist in these reports/searches of your records the Family Medicine Research Centre has undertaken significant work to improve the quality of "groupers" available in ICPC-2 PLUS. This work has resulted in a more comprehensive list of concept types both within and across rubrics and chapters.

HINTS when utilising ICPC-2 PLUS's inbuilt groupers:-

If you are searching for a set of patients who may fulfill multiple criteria of a grouper (e.g. your search = all patients with "High BP" OR "Simple Hypertension" OR "Hypertension with complications". If your patient was originally labeled "high BP" and later diagnosed as "hypertension" your software could identify this patient more than once.

What is the solution?

You need to ensure that your search can run a count of patients who fulfill 'at least one' of the criteria codes listed for your grouper.

Check with your software supplier to ensure this is feasible

If this sounds confusing check the "hypertension" grouper criteria listed on page E-8

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